

ATARI ST REVIEW



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TWO PART PACKAGE

PART 2 NEXT MONTH

ATARI ST REVIEW

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Superb vector graphics package that works in either medium or high resolution. Easy Draw 2 is a powerful commercial program from Migraph that allows you to create incredibly detailed pictures using basic elements such as lines, circles and patterns. Requires 1 meg of RAM.



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INSIDE: HiSoft's TruePaint • SpeedoGDOS • 2 MIDI sound modules • Art package round-up • and lots of tutorials...

ATARI ST SOFTWARE & ATARI LYNX 2

SPECIAL RESERVE TOP TEN ATARI ST GAMES OF FEBRUARY/MARCH 1993



GAMES		EDUCATIONAL	
A320 AIR-BUS	RD6235...21.99	ADI MATHS (5-13 YRS)	RD6559...16.49
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AIR SEA SUPREMACY (GUNSHIP, SILENT SERVICE, P47, F15, STRIKE EAGLE, CARRIER COMMAND)	RD5168...13.49	FUN SCHOOL 3 (2-5 YRS)	RD5309...15.99
ALIEN 3	RD7363...19.49	FUN SCHOOL 3 (5-7 YRS)	RD5309...15.99
AMBERSTAR	RD7433...19.99	FUN SCHOOL 3 (7-9 YRS)	RD5309...15.99
ANOTHER WORLD	RD5194...16.99	FUN SCHOOL 4 (2-5 YRS)	RD5309...15.99
ARCHER MACLEAN'S POOL	RD7142...13.99	FUN SCHOOL 4 (5-7 YRS)	RD5309...15.99
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B17 FLYING Fortress (1 MEG)	RD7428...21.99	MICRO ENGLISH (8 YRS TO GCSE)	RD9025...16.99
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BATTLE OF BRITAIN D'S	RD6337...13.99	CONFORMS TO NATIONAL CURRICULUM	RD9033...16.99
BATTLEHAWKS 1942	RD7230...10.99	CONFORMS TO NATIONAL CURRICULUM	RD9033...16.99
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CARL LEWIS TRACK & FIELD CHALLENGE	RD8427...16.99	CONFORMS TO NATIONAL CURRICULUM	RD9033...16.99
CHAMPIONSHIP MANAGER	RD5269...18.99	CONFORMS TO NATIONAL CURRICULUM	RD9033...16.99
CHAMPIONSHIP MANAGER 1992/93 (1 MEG)	RD7423...17.49	CONFORMS TO NATIONAL CURRICULUM	RD9033...16.99
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COOL WORLD	RD7046...17.49	CONFORMS TO NATIONAL CURRICULUM	RD9033...16.99
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DIZZY PRINCE YOLKPOK	RD7452...7.49	CONFORMS TO NATIONAL CURRICULUM	RD9033...16.99
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INDIANA JONES 2 ACTION (FATE OF ATLANTIS)	RD6239...17.49	CONFORMS TO NATIONAL CURRICULUM	RD9033...16.99
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LETHAL WEAPON (1 MEG)	RD7042...16.99	CONFORMS TO NATIONAL CURRICULUM	RD9033...16.99
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LOTUS TURBO CHALLENGE 2	RD6007...9.99	CONFORMS TO NATIONAL CURRICULUM	RD9033...16.99
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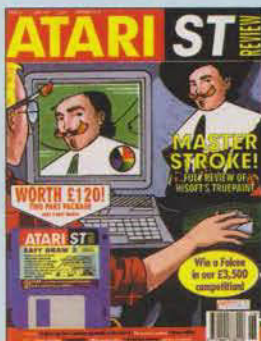
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TruePaint is the first decent paint package in years. Turn to page 18 to find out just how good...

ST REVIEW ISSUE 14 JUNE 1993



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ENTERPRISE

Printed by Passmore International (Maidstone)



Five new games from Kixx XL reviewed on page 60...

...while Jurassic fever hits the ST - Stone Age on page 59...



ON THIS MONTH'S COVERDISK EASY DRAW 2

We've excelled ourselves this month by bringing you a full-blown vector graphics program. Easy Draw 2 from Migraph is a powerful commercial package that works in either medium or high resolution and lets you create incredibly detailed pictures using basic building blocks such as lines, circles and various patterns. With Easy Draw 2, you can design quality pictures and logos for use in letter-headings, magazines, news-letters ... or just for fun! Epson 9-pin printer support is provided as standard and pictures can be saved as .GEM files for you to load into Timeworks.

PLUS

SEE PAGE 14 FOR:

DTERM: an easy-to-use comms terminal program to go with our article on CIX.

FASTRAMD: a highly flexible RAMdisk used in our Problem Solved tutorial.

EXTAKEY: Gives you access to all 256 ASCII characters for use in word processing or DTP.

AUTOBORT: Allows you to bypass auto folder programs.



FEATURES

18 FLYING COLOURS

TruePaint is the first major paint program to be released in years and offers some absolutely mouth-watering options such as a flexible toolbox, animation and translation to and from a whole host of image formats. Add support for SpeedoGDOS along with true colour on the Falcon and the sum result is a serious product. How good is it? Find out by reading Maurice Collins' comprehensive review starting on page 18...

26 ARTY FACTS!

TruePaint apart, the market is awash with art programs. Want to know how they compare? Our art package round-up lists nine of the contenders...

30 LESS HASTE, MORE SPEED!

There have been so many incarnations of GDOS that you probably need a calculator to add them up! SpeedoGDOS is the latest version but does it finally deliver what we've all been waiting for? Ofir Gal provides the answer.

34 IMPROVE YOUR MEMORY!

With ST Review offering memory upgrades from the ridiculously low starting price of £9.99, you'd be foolish not to be considering adding extra RAM. How easy is it to fit? Tony Kaye takes you through one of our famed photographic step-by-steps...

39 ALIVE AND CIXING!

CIX, or the Compulink Information eXchange, is one of the foremost UK bulletin boards with hundreds of conferences and thousands of programs just waiting to be transferred to your ST. Interested? André Willey explains all...

44 THROUGH THE KEYHOLE

The first in a brand new series aimed at giving you a unique insight into the major UK companies. Ever wondered what goes into producing ST software? Tony Kaye finds out that HiSoft certainly know a thing or two...

48 ONE MAN & HIS ST

What makes a software writer create a certain program? Jeremy Hughes, author of *Fontkit Plus* and *Imagecopy*, shares a few of his secrets with ST Review.

REGULARS

6 NEWS

The recent MIDI & Electronic Music Show should have been renamed the Falcon Show! Hot pics and information along with the latest product news.

10 EASY DRAW 2 TUTORIAL

ST Review does it again with *Easy Draw 2*, a full commercial package for your enjoyment! Keith Berry runs through the features and then takes you on a guided tour through your first creation...

52 MIDI MONTHLY

With the price of sound modules continuing to tumble, MIDI Monthly reviews the latest two to appear: Roland SC-7 and MIDI Blaster. Are they worth buying? Read Vic Lennard's comments on pages 52 and 53. Also on review are MixIT, *Music Mandala* and the latest MIDI song files...

57 SCREEN SCENE

An exclusive preview of the new French game from Lankhor Software, *Black Sect*, and an atmospheric adventure set in the (very French!) Yorkshire Moors heads off this month's Screen Scene. There are also reviews of *Stone Age* from Grand Slam and a VFM Special on a new range of mid-priced games from Kixx XL — all nicely wrapped up with a competition with three chances to win no less than 10 games!

64 PD ZONE

Our usual mixed bag of the latest PD games, utilities and databases as well as our usual set of coupons to help your orders on their way...

74 RAMPING IT UP

The last in our Problem Solved series aimed at helping you to get the best from your ST. What is a RAMdisk? Do you need one? Andrew Wright shows you how to make the most of your megabytes...

98 SUBSCRIPTIONS

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SEE PAGES 46 & 47...**

INFORMAL

The column with that laid-back feel...

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SCREEN SCENE

Relax with the latest games...

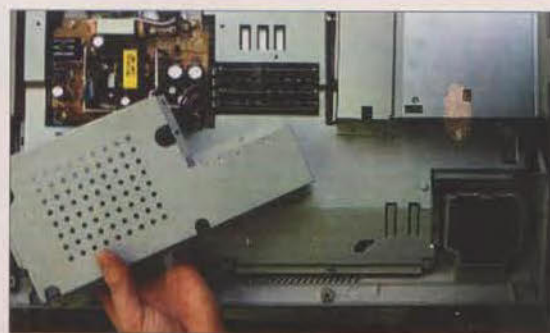
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ST BUYER

*Tutorials, short reviews and your letters
— all in one section...*

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**WIN
ALL TEN
KIXX XL
GAMES!
SEE PAGE 63!**



Upgrade your memory step-by-step on page 34.

NEWS

TIME FOR OPTIMISM

As many of you know, I've been highly sceptical about the Falcon. Irrespective of whether various "official" comments have been fact or fiction, we appear to have been chasing a shadow for the past year. Now that stocks are finally starting to trickle into retail outlets, has the wait been worthwhile? Or has the Falcon simply been an interesting exercise in marketing by hype...



Something happened recently that finally convinced me. The fourth MIDI & Electronic Music Show was held at Wembley at the end of April and being a public hands-on style show, it has never been seen as a forum for introducing new products into the UK. Quite frankly, it should have been renamed the Falcon Show as the news report on this page bears out. There were at least 10 stands showing software on the Falcon and many products had never been seen publicly in the UK. From Steinberg's Cubase Audio offering eight tracks of quality digital sound to Compo's MUSiCOM, a sub-£50 product reviewed last issue, the buzz around the show was all about one product – the Falcon.

Yes it's just a music show, but there are only two areas of the ST market that have ever really attracted professional interest and that's music and DTP. But while there are, perhaps, half a dozen DTP packages for the ST, you'd need a calculator to count the number of music programs.

You're not interested in music? Fine, but unless the Falcon sells in reasonable quantities we're unlikely to see many manufacturers taking the plunge and supporting a machine that won't return them a profit. The music industry has taken to the Falcon like a duck to water – when you see a father handing over £1,000 in £20 notes to buy a Falcon for his music-loving son, you know that the corner has finally been turned.

HiSoft have been one of the few software companies to support the Falcon from its inception. It's clear from their history, as detailed in *Through The Keyhole* this month, that they're not a company to take risks lightly. Are their current products music-based? No. Now doesn't that tell you something? Also, compatibility doesn't appear to be the horrendous issue that we expected – just take a look at how many public domain programs are marked "Falcon-Compatible" in PD Zone this month.

Will a version of the Falcon appear sporting a faster 68030 processor? Or a 68040? Possibly, only time will tell. But there's one thing for certain. If manufacturers don't support the machine by creating Falcon-specific software, the public won't buy it and we're back to square one.

This month we're giving away an incredible prize worth over £3,000 in the shape of a Falcon, high-quality colour monitor, Citizen Projet printer and an excellent bundle of software and accessories. Do ST Review have faith in the Falcon? Actions speak louder than words...

Vic Lennard
Editor

MUSIC
& THE

The MIDI & Electronic Music Show is the hi-tech public arena of the year – fact. Launched simply as the MIDI Music Show in 1990, two things have changed; the venue and the general atmosphere of the show. Now based at the Wembley Conference Centre, it appears to have finally come of age with a more professional outlook attracting serious and casual music-users alike.

All of the major music manufacturers were there, and many were showing synths and other equipment for the first time in the UK after launches in either the USA or Germany at the beginning of the year.

The two large seminar halls were in use for most of the show with over 300 people packing out the most popular demonstrations. These included the first UK showing of Cubase Audio on the Falcon, Yamaha's hard disk recording sys-



"Hello Music" was a rather apt backdrop for the Yamaha stand. Using

the high public profile of the MIDI Music Show, Yamaha were showing their brand new CBX-T3 sound module used in conjunction with a Falcon running Cubase. The CBX-T3 is very similar in design to the existing TG100 and so is a true General MIDI instrument.



Take Control's Music DTP program is one of very few music desktop publishing programs on the ST. SharpScore is the latest product and Take Control have ensured that it is Falcon-compatible...

The MIDI & Electronic Music Show attracted more than 10,000 people to the Wembley Conference Centre at the end of April. Vic Lennard was there, camera in hand...

FALCON

tem for the Atari ST, combined sequencing and sample play-back via Gajits' Breakthru, program and an excellent demonstration of how to put together a sequenced song on the ST from Joe Ortiz of Heavenly Music.

From an Atari point of view, the big news was the number of Falcons being used for demonstrations. At least ten stands were using the new computer, as the picture gallery shows, and many people bought systems at the show.

Direct-to-disk recording was the hot news with products from Composoft and Steinberg utilising the Falcon's DSP. With supplies guaranteed to improve through the year, perhaps the organisers should consider changing the name of the next show...

D2D 4T/FX and Edit were both reviewed in the last issue of ST Review. Providing Falcon owners with a four-track direct-to-disk recorder and editor, the D2D products are continually being refined and updated. Various retailers were showing these products including Brixton Exchange & Mart on whose stand this photo was taken.



Audio Visual Research, or AVR for short, are now part of HiSoft and no time has been wasted in having a product available for the Falcon. While the Replay 16 cartridge shown in this photo is likely to be of little use to Falcon owners due to the Falcon's DSP chip, it can be used to digitally edit sounds. With the expertise of AVR on-board, HiSoft are guaranteed to bring out Falcon-based audio products in the future...

The other star of the show has to be Steinberg's Cubase Audio which gives eight tracks of digital audio on the Falcon without the need for any extra hardware. People crowded round each time Dave Nicholson of Steinberg gave a demonstration and the integration between sequencing and digital audio was most impressive as shown in the screenshot.



With the open structure, over 10,000 people weaved in and out of the stands during the three days. The show has finally come of age and must now be viewed as the premier public music show of the year.



One of the major crowd-pullers was Composoft's MUSiCOM program, also reviewed last issue and given an "Essential Buy" award to boot! With a

twenty minute demonstration every hour, the crowds flocked to see the "Falcon Show" on a special 37-inch monitor. Ofir Gal was on hand to control the Falcons while Steve Pert did his showman bit with a comprehensive tour around the computer, concentrating on MUSiCOM and Cubase. Sharing the stand were System Solutions,



sporting a comprehensive selection of upgrade software and hardware, and CGS who gave a very impressive demo of DA's Vector.



Steinberg have taken to the Falcon in a big way, with a compatible version (3.02) of their best-selling sequencer, Cubase, already available to Falcon owners. The ease-of-use offered by Cubase was borne out by the number of stands using it for demonstrations, including Heavenly Music and Hands On MIDI Software, two of the major MIDI song file libraries.



System Solutions

High Res Monitors

The sudden lack of Atari High Resolution monitors, and high demand have prompted System Solutions to fill the gap with their new range of SM14 monitors.

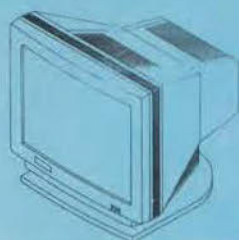
This 14" monitor has a paperwhite FST (flatter squarer tube), which gives a crisp and sharp image with no blurring at the edges. There are two models, the SM14 without speaker and the SM14s with Speaker. A special Falcon version is available, too.

Each monitor is individually adjusted for the best possible picture. Perfect aspect ratio and optimised image for OverScan ST (shown below) are available on request.

'Essential Buy, 90%'
ST Review, May 1993.

RRP: £149.95
without speaker
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081-693 3355



NVDI

If you are one of those people using DeskTop Publishers, or Music Notation, do you find that you spend ages for the screen to redraw. Well, if so then System Solutions have the solution for you. NVDI is the fastest and most compatible display accelerator software available.

It works by replacing parts of TOS with optimised code. The faster the processor (CPU), the greater the benefit. Display routines are 3-10 times faster.

It'll make you wonder how you ever used your ST without it! ST User, August 1992.

Version 2.11 still only £39.95
Further info on tel 081-693 1919

High Density

DO you feel left out when your PC, and Mac friends start talking about how they can get 144Mb on a floppy disk. Well, now you can join them with the EiCo High Density kits.

The kit comes with fitting instructions, software (HD formatter) and a high quality 144Mb floppy disk drive. It is fully compatible with your old double density disks, and works with PC Emulators.

A perfect replacement for those troublesome single-sided drives.

Special Offer Price: £89.95

The High Density Module is also available separately without the drive for £39.95

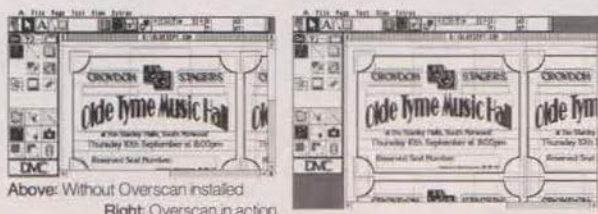
Phone System Solutions on Tel: 0753-832212

Crossing the Border

EVER fancied the idea of a larger monitor, but not the price that goes with it?? Well now you can with OverScan ST. This little board fits inside your Atari ST(FM) or Mega ST (not STe's) allowing you to use the black borders as an extended working area. In practise this means you can get up to 40% extra screen in high resolution, and up to 60% in colour. It also works with Multisyncs.

**Special Offer
Price £39.95**

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Above: Without Overscan installed
Right: Overscan in action

News

Drives

QUALITY SCSI Hard Drives are now available from System Solutions with capacities from 40 Megabytes to 3.5 Gigabytes!! They are all carefully assembled into beautiful UK made cases with prices as low as £299.

Also available are 128Mb Magneto Optical drives, Syquest drives, Optical, Floptical and WORM drives. For more information call 081-693 3355.

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EVER thought about joining the communications revolution. Well, all you need is a modem from System Solutions. Available speeds are 2400bps to 14,400bps, including data compression, error correction and Hayes compatibility as standard. TeleOffice, the facsimile manager software, allows you to send and receive faxes from within your favourite wordprocessor and DTP software. Why not find out more. See address below

Tower Power

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Why not call in to the Desktop Centre for a demonstration?

For further information on any of the products on this page, please contact:

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Tel: 0753-832212
Fax: 0753-830344

or

System Solutions,
The Desktop Centre,
17-19 Blackwater Street, London,
SE22 8RS
Tel: 081-693 3355
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Atari Repairs/Upgrades

If your Atari has seen better days, or it needs a bit of a boost, then contact us at Atari Workshop. We operate two fully equipped workshops, giving a professional service and customer satisfaction. Our high standard of workmanship has been endorsed by Atari UK. We repair, fit memory upgrades, accelerators, and in fact just about anything you can think of. Why not give us a call now, and see what we can do for you?

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The Desktop Centre, 17-19 Blackwater Street, East Dulwich, SE22 8RS. Tel: 081-693 1919

ATARI
WORKSHOP

NEWS

Falcon support is growing but not at the expense of the ST, as our round-up reveals...

GAMES, GAMES, GAMES!

Software houses are realising the value of the ST when it comes to games. Gremlin Graphics are set to release *Zool*, *Ninja of the Nth Dimension* after originally deciding not to. A recount of the software titles sold on the ST have apparently made this a game worth producing. The game will be Falcon-compatible, but no extra features are expected for the 68030 machine.

Two new games have been released for the Falcon and will shortly be available from Daze Marketing.

Ishar and *Transarctica* are the first Falcon games to be made available. Both take advantage of the 256 colour palette. See next month's *ST Review* for a full review of both games.

One of the first Falcon specific games, Ishar



SUB-£500 LASER IS OKI BY US!

OKI have launched the first laser printer with a retail price beneath £500.

With a recommended retail price of just £499, the OL400E and boasts a speed of 4 ppm, 100-sheet paper tray, 42 bitmapped fonts, 300x300 dpi resolution and 0.5 megabyte internal memory upgradeable to 4.5 megabytes. Add to this a very efficient energy management system and advanced toner saving features and you have an entry-level laser well worth a second look.

OKI are at 550 Dundee Road, Slough Trading Estate, Slough, Berkshire SL1 4LE. Tel: 0753 819819



The OKI OL400e is the cheapest laser so far!

HP'S GOT SOME SAUCE!

Hewlett Packard have introduced a new entry level laser printer, the LaserJet 4L.

Priced at just £649, the 4L should prove attractive to small businesses and home users. Later in the year, a Postscript version will be available.

The HP 4L is capable of printing four pages per minute and is designed to be easy to use and cheap to run. It powers on and off automatically to reduce power consumption and has an EconoMode, enabling you to print pages at half the cost using a draft print mode.

Also from HP is a new colour ink jet printer, the Deskjet 1200C and the 1200C/PS.

Both printers can produce up to seven pages per minute of text and offer 600x300 dots per inch resolution. The speed comes down to two minutes per page for a full colour page proof requiring three passes of the print head.

Prices are £1389 and £1939 respectively. More information from the Customer Information Centre, Hewlett Packard Limited, Cain Road, Bracknell, Berks RG12 1HN. Tel: 0344 369222.



The HP LaserJet 4L. Affordable laser printing.

The DeskJet 1200C. Professional colour printing.



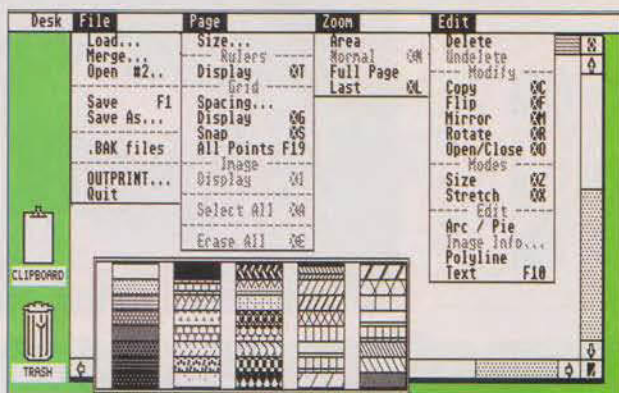
FALCON CLUB CALLS THE TUNE

A new club has been formed in support of the Falcon. FIX (Falcon Information eXchange) will specialise in musical applications for the machine.

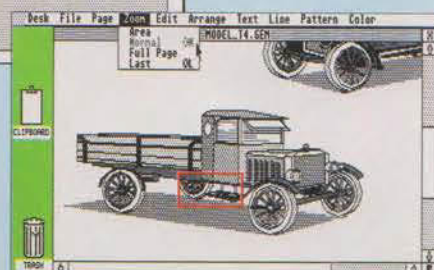
Membership costs just £20 per year including a regular disk magazine containing news, views, reviews, interviews, letters, questions and answers and a regularly updated listing of music packages for the Falcon.

To join, send a cheque or postal order made payable to "Computing For Music" to 11 Ferrestone Road, Hornsey, London N8 7BX or telephone 081-340 1871.

The screenshot shows the 'Format' menu in AutoCAD, with the 'Text' submenu open. The 'Text' submenu lists various text styles: Normal, Bold, Light, Italic, Outline, Underlined, and Justify. Other options in the 'Format' menu include Line, Pattern, Color, and Settings. The 'Color' dialog box is also visible, showing a color selection interface with a color bar and a 'Settings...' button.



This is Normal zoom. Note that the current level is greyed out in the menu. The red box shows the Area for the next level.



EDIT

Delete (or Delete key): Deletes any or all activated objects without a warning prompt.

Undelete (or Undo key): Restores the last deleted object at the top-left corner of your current window, so if the top of the window is not currently visible you will have to scroll up to it.

Copy (Alt C): A duplicate of an active object is made, slightly offset of the original.

Flip (Alt F): After selecting this option a dialogue prompts "Left/Right" or "Up/Down" for horizontal or vertical flip. Select with the mouse pointer or press the "L" or "U" keys.

Mirror (Alt M): This is the same as using Copy and Flip but saves a step or two.

Rotate (Alt R): Repeatedly pressing Alt-R rotates an active object in 90 degree steps.

Open/Close (Alt O): This toggles the opening and closing (a line joins the start and end points) of a selected Polyline.

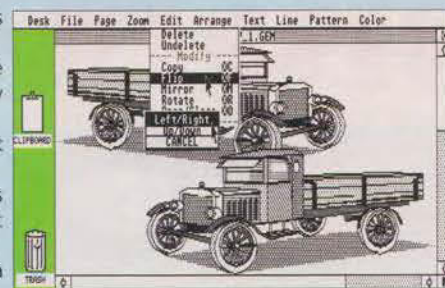
Size (Alt Z): With this option selected (appears ticked) the sizing box has no corner squares and resizing using the mouse pointer on the side squares will increase or decrease the size of the active object in both directions proportionately.

Stretch (Alt X): This differs from Size in having corner squares on the sizing box and the object can be stretched in either direction.

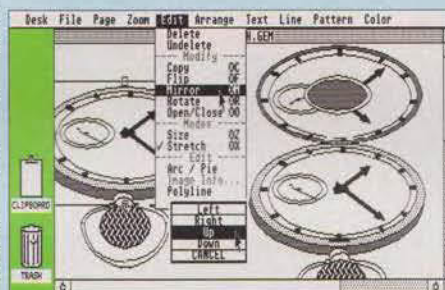
Edit Arc/Pie: After selecting an existing Arc or Pie object (it must be ungrouped from other objects first), this allows you to alter its size or shape. Press the right mouse button to exit this mode.

Edit Polyline: Use this much as the above function. You can select the turning points of a Polyline and move them individually. An extremely useful feature and experience with it will show that it pays to use more, and closer, turning points than you may otherwise expect when drawing Polyline.

Edit Text (F10): Moves a cursor into an existing Text box to allow deletion or insertion of extra text. You can also split a text box into two or toggle right-justification on and off. Right click to exit.



Objects may be reversed using the Flip function. The Mirror function is identical except that it duplicates the original object.



Using Mirror Up and just a couple of modifications turns a simple pocket watch into a half-hunter!

ARRANGE

Put in Front/Back: Controls which of two or more overlapping objects are displayed "over" or "under" the other(s).

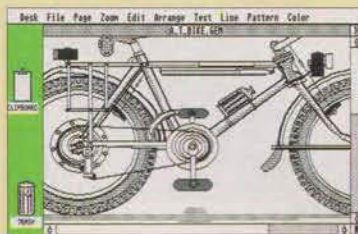
Create Group (Alt +):

Explode Group (Alt -): Each drawn line, rectangle and so on, is an individual object and a number of these can be grouped together to form a single object. Rubber band a group (or hold Shift and click on each item to be grouped) and press Alt +. To edit a member of a group you first have to Explode it.

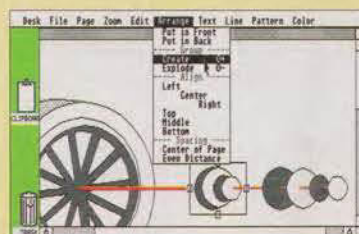
Align functions: Only affect objects shown to be active (select as above but do not press Alt +) and control their positions within the area of the group. The first three affect the horizontal positions and the second three the vertical ones.

Centre of Page: Works as Centre and Middle as above, but relates to the page size instead of the group area.

Even Distance: Can be useful for rescuing an object that has become "hidden" under others.



This illustrates Put in Front/Back. The frame tubes, are in front of the tyres but behind the chainwheel.



Components of a picture can be built up of several parts grouped together using Create Group.

PATTERN

Styles...: Selecting this causes the pattern selector box to be displayed. The pattern shown ticked is the last one chosen – it is not the pattern attribute of a selected object. The bottom right box selects the "User Pattern".

Transparent: Toggles the Transparent mode of a filled object on and off. Particularly useful for adding surface shading.

Shadow: Adds an unmodifiable solid black shadow to an active object.

User Pattern...: Presents you with a box in which to create your own pattern for use within Easy Draw 2, but this pattern will NOT be recognised by any DTP program into which you import your graphic...

TOOLBOX

Press the spacebar or right mouse button to obtain the Toolbox and left click on the item required. If you have selected it accidentally, press the right mouse button.

Most types will be familiar to bit-image artists as will be the methods of drawing them – in most cases hold down the left mouse button to commence drawing and press the right mouse button to stop. Those to which a fill pattern may be assigned are shown as such in the illustration.

Freehand is the equivalent of a Draw command but should only be used when absolutely necessary as it eats up memory. It is much better to use a Polyline.

A Polyline can be "filled" even when not closed into a loop. Commence drawing with the left mouse button held down, pressing the right mouse button once whenever you wish to change direction and twice to terminate the Polyline.

After selecting Text, draw a rectangle and a cursor – a small upright line – will appear inside its top left corner. Begin typing and the text will appear.

TEXT

These modifiers are self-explanatory and affect an existing and selected text box.

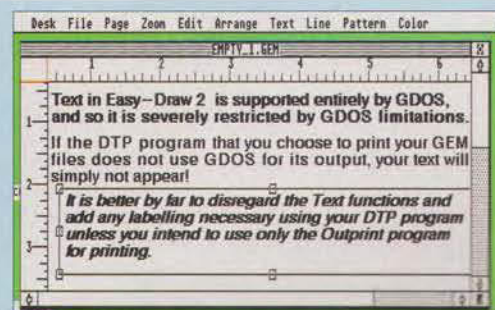
LINE

These set your line types, widths and ends for active (and subsequently drawn) lines, rectangles, circles and so on. "None" is used for filled objects that require no outline.

COLOR

Definite Americanism! As Easy Draw 2 only runs in high (mono) or medium resolution, only the first two or four colours respectively of the 16 shown are actually usable.

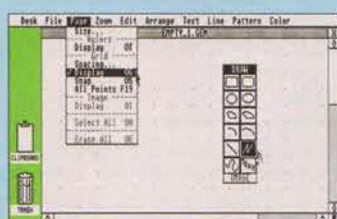
The same .GEM file can be loaded without conversion into either resolution, but remember that if you use colours 2 and 3 they will be treated as black both in high resolution and when printed.



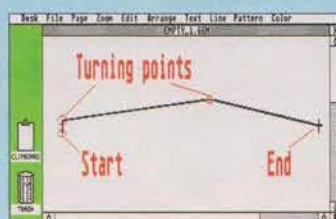
Text will only appear in print if you use OutPrint or Timeworks DTP.

DESIGN A PEN!

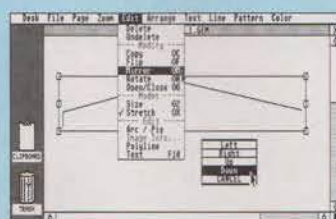
STEP BY STEP



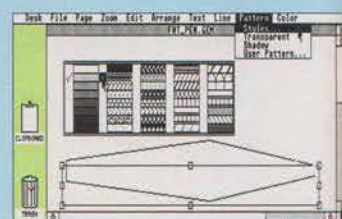
1 After booting up, you are presented with a spotty but otherwise blank page. The spots are the Grid and you can switch this off from the Page menu – or press Alternate-G. Press the right mouse button for the Toolbox. Select Polyline as shown.



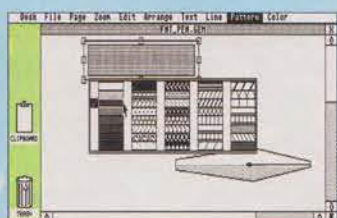
2 We are drawing the left half of a fountain pen nib (top half as it is lying on its side). Begin by holding down the left mouse button to draw upwards, pressing the right button once to make each of two turns as shown. At the end, press the right button twice to stop.



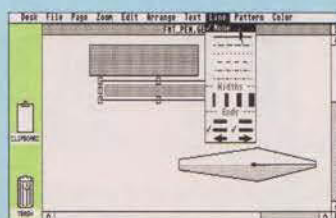
3 While the Polyline is still active (with a sizing box around it) go to the Edit menu and choose Mirror (or just press Alternate-M). Select "Down" and the other side of your nib will appear.



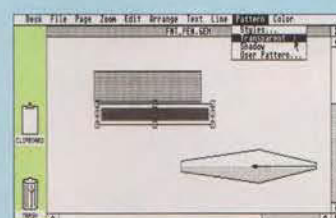
4 For modelling, let's add shade to this lower nib half by selecting Styles... from the Pattern menu. At the appearance of the Pattern Selector, click on the one representing the lightest grey. When the Pattern Selector disappears, your nib half is shaded.



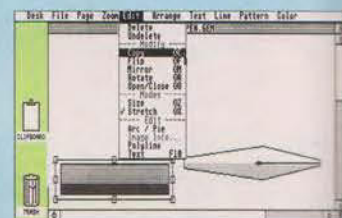
9 Apply a pattern to the Rectangle, as before, using the Pattern Selector. The second palest grey was chosen for the example but feel free to select any pattern you wish – you can always change your mind later.



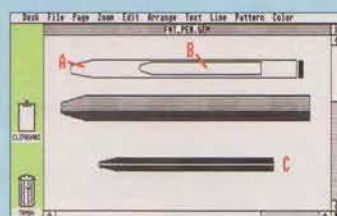
10 This will be a shadow. Either draw another Rectangle a third of the height of the last, or Copy (Alternate-C) the last one and compress it to a third of its height using the sizing box. Then go to the Line menu and select None.



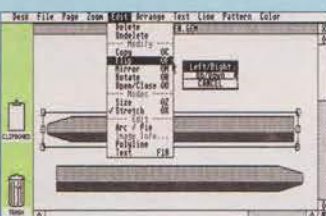
11 Use the Pattern Selector to choose a darker grey and then select Transparent also from the Pattern menu. This allows the underlying pattern of the barrel to show through. If you should need to make a transparent object opaque, just click on Transparent again as it toggles.



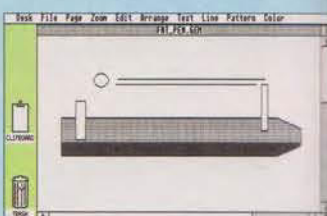
12 Move the shadow rectangle so that it fits over the lower part of the first one, and Create a Group as before. Again use Copy, checking at the same time that Stretch mode in the same menu is selected.



17 Copied and resized, the same shape has now become the metal ink sac holder (A) and spring sac compressor and filler (B). A black rectangle represents the end of the sac holder. Resized again and with a dark grey pattern, the same shape has become the rubber ink sac (C).

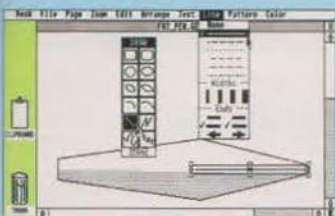


18 A copy of the bottom barrel is now about to become the pen top (cap) using Flip but this time Left/Right. Exactly the same result can be achieved using Mirror Right without the Copy step. Resize the result using Stretch so that it is wider but shorter.

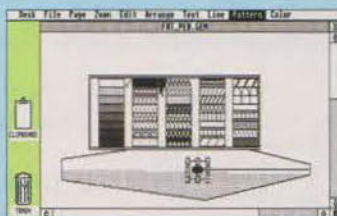


19 The trimmings and clip are added using two plain rectangles, a small circle and two lines. Slide each component into place on the cap, Group (Create) the whole assembly together and slide into position over the rest of the pen using Put in Front if necessary.

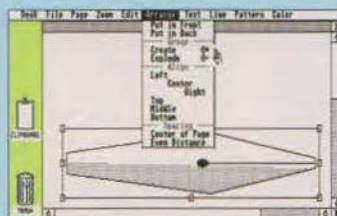
Time for some action! Follow Keith Berry's step-by-step guide to craft your first creation...



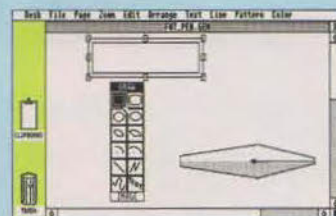
5 Go to the Line menu to check that you will get a single narrow line, left click to change or right click to exit. Right click for the Toolbox, select the Line icon and draw a line as shown for the ink channel. Draw another small line to connect the ends of the nib.



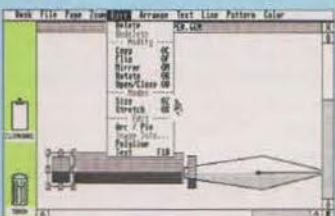
6 From the Toolbox select the left Circle and, beginning at the left end of the long line, press the left mouse button and move the mouse slowly up and down. When the Circle appears to be of suitable size, release the button. Go to the Pattern Selector again and choose "Black".



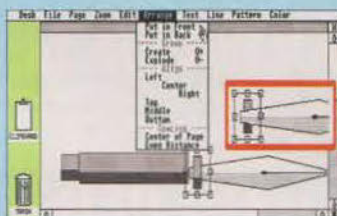
7 The complete nib can be formed into a single object to make it easier to handle. Rubber band all components together with the mouse and left button so that they are shown as active and either select Create from the Arrange menu, or press Alternate +, when a single sizing box will enclose the nib as shown.



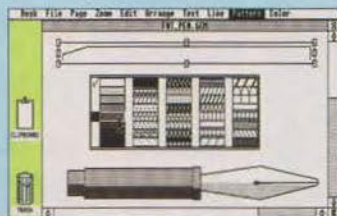
8 To start on the pen's barrel, select the upper right Rectangle from the Toolbox and draw such a shape of approximately the same size as the nib. The size is not critical as Easy Draw allows any drawn object to be resized easily.



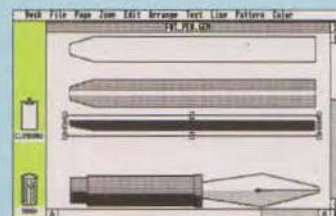
13 Now that the barrel section is grouped, copies of it can be resized for the other parts of the barrel that are of differing diameters and lengths. Slide the parts around until they appear to be in the right places and group them together to save them from being moved.



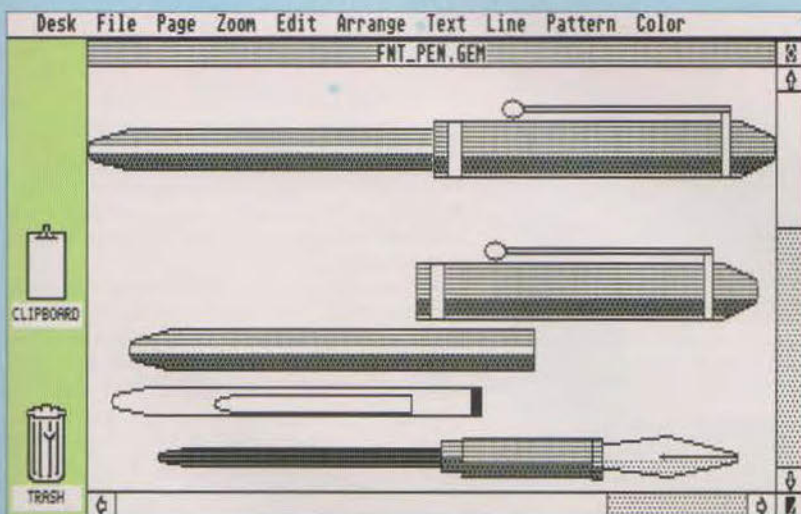
14 Where you find that a component appears to be on the wrong side of an overlapping one, such as that illustrated in the red box, use the Put in Front or Put in Back options in the Arrange menu. Sadly, there appears to be no keystroke alternative for this much-used function...



15 Select Polyline from the Toolbox and draw what appears to be half a torpedo. Initially representing the bottom half of the pen barrel, it is also the foundation for other parts of similar shape. Apply the same pattern to it as before unless you would like a contrast - it's your pen!



16 Here we create another shadow much as before, again making it transparent. Another copy of the full, grouped, torpedo shape has been made, this time with a plain white fill and awaiting its transformation into other objects.



20 The final view. Unlike any bit-image utility, Easy Draw 2 is ideal for creating such pictures of assemblies and sub-assemblies that can be taken apart and examined in detail. Next month we'll create another example...

As well as the great Easy Draw 2 package, we've also managed to squeeze four great utilities onto the disk...

DTERM

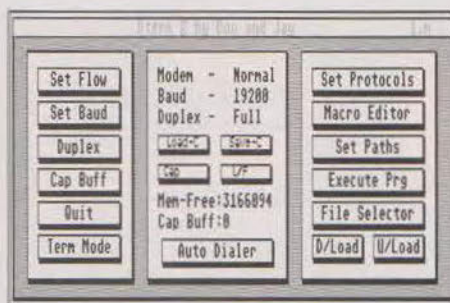
DTERM • COMMS PROGRAM • MEDIUM OR HIGH RESOLUTION • 0.5 MB

A simple terminal program to get you started in comms...

DTerm is an easy-to-use terminal program for comms operation. It has all of the features you need for basic connection to bulletin boards around the country (or the world). It's also referred to in *Alive & CIXing* on page 39.

To run DTerm, simply connect your modem and double click on DTERM.PRG. Set Baud lets you select the baud rate of your modem while Duplex and Flow are usually set to Full and Normal respectively for BBS operation.

The Capture Buffer will store everything that appears on screen so you can recall a routine or



The main screen with all of the settings for DTerm.

WHAT TO DO IF YOU HAVE PROBLEMS WITH YOUR COVER DISKS

DON'T PANIC

In the unlikely event that your cover disk won't load or gives you any other problems at all, remove any cartridges and peripherals and try again. Please note that to restart the computer, you must SWITCH IT OFF for at least five to 10 seconds to clear all traces of resident programs before continuing.

If this doesn't solve your problem, return your disk, with a stamped addressed envelope to P.C. Wise Ltd., Dowlais Top Business Park, Dowlais, Merthyr Tydfil, Mik Glamorgan, CF48 2YY. PC Wise will test the disk and send a replacement as soon as possible. You can contact the PC Wise Helpline with any urgent problems. Please note that PC Wise will deal with faulty disks only and not general enquiries. PC Wise can be contacted by telephone on 0685 350505 between 10.30 and 12.30 on weekdays.

THIS MONTH'S COVER DISK

re-read a message if it has scrolled up before you've had a chance to read it. You can save it to disk, turn it on or off and even alter the size if you have enough memory available.

Set Protocols lets you choose X, Y or Z Modem modes for file transfers. All BBSs will support at least one of these if not all of them. Use the Macro Editor to input phrases or login sequences that you use all the time and Set Paths to install DTerm onto a hard disk or second floppy drive. Execute Prg lets you run an external program without having to quit from DTerm - useful for running other file transfer programs or SPLIT.PRG if you have a mono monitor. The Autodialer will store 20 BBS numbers along with the user name, password, baud rate and other information. The file is stored on disk and can be loaded at the start of your session. To enter or exit Terminal mode, just click the right mouse button.

The program SPLIT_1.PRG is only for high resolution monitors and allows you to have a split screen for sending and receiving, giving a type-ahead buffer.

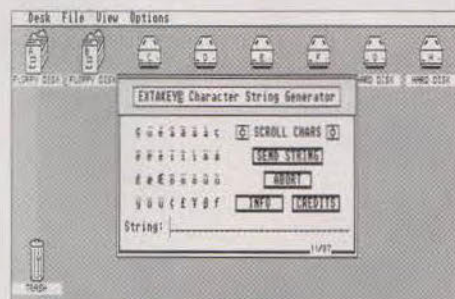
EXTAKEY

EXTAKEY • WP ACCESSORY • ANY RESOLUTION • 0.5 MB

Use all 256 members of the IBM character set in your documents.

The ST keyboard is not usually capable of sending key codes greater than ASCII 127, which means that IBM graphics characters and other special text features are not supported. This includes Greek symbols for equations, foreign and graphic characters.

To make use of these features, copy the files EXTAKEY.ACC and EXTAKEY.RSC to the root directory of your boot disk (the first window opened on the disk that is used to start your computer) and reboot. Extakey will appear under the desk option.



Choose the extra characters you need and input them into your documents with Extakey

All of the characters are displayed and you can click on the ones required and import them into your text.

AUTOBORT

AUTOBORT • AUTO FOLDER UTILITY • ANY RESOLUTION • 0.5 MB

A small AUTO folder utility that allows you to skip any auto loading programs on reset

Autobort is a small program that is placed in the AUTO folder. When booting the computer, it will bypass any programs following it in the folder if you hold down one of the following keys: LEFT or RIGHT SHIFT, ALTERNATE, CONTROL, or CAPS LOCK.

You need to place the program in the position that you require it in the AUTO folder. To do this, follow this simple step-by-step guide:

- Create a folder called "OLDAUTO" on the disk.
- Copy all of your AUTO programs into this folder and delete them from the original AUTO folder.
- Copy them back in the order you want them to run, placing AUTOBORT.PRG in the position you want it to start bypassing from.

FASTRAMD

FASTRAMD • RAMDISK UTILITY • ANY RESOLUTION

The configurable RAMdisk used in the Problem Solved piece this month.

To install the RAMdisk, place the program file FASTRAMD.PRG in your AUTO folder. Create a small text file with a word processor or text editor called RAMDISK.INF.

All you need in this is the name of the drive (anything that is not used from C to P) and the size. For example "M200" would create a RAMdisk called drive M with a capacity of 200 kilobytes. Don't forget to install the drive and save the desktop.

You can create a RAMdisk from the desktop using the file FASTRAMD.TTP, adding the information required for the drive number and size. Check out Problem Solved on page 74 for more about this.

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To help you get the most out of Easy Draw 2, we've arranged some very special prices for upgrades and manuals...



Our cover disk this month has the impressive *Easy Draw 2* program and next month we'll be giving you *Easy Tools*, its partner. You now have the chance to get the full manual to go with the program along with many other offers from the publishers of *Easy Draw*, *Migraph*, including OCR (Optical Character Recognition), Touch UP, Scan Art and Draw Art along with all the printer drivers you'll ever need.

Here's a rundown of what's available:

- Easy Draw 2 Manual – The full manual for the cover disk program.
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HiSoft has just released a budget paint package that works in any screen resolution – from boring old monochrome to stunning true colour. Maurice Collins takes a look

FLYING COLOURS



T ruePaint is the latest paint package to hit the ST market and, as its name suggests, it has been designed to take full advantage of the Falcon's exciting true colour capabilities. However, if you're like me and still wedded to your ST, there's no need to turn the page – it works just as well on any ST, no matter what resolution you happen to work in.

As such, it's a clever marketing exercise. Buy TruePaint now and you get a working multi-resolution art package that will convert images between several different formats. If you then decide to move on up to a



Four or more different files can be loaded at once.

A large true colour image loaded into TruePaint.



Falcon at some stage in the future, or perhaps add a high resolution graphics card to your existing ST, you won't have lost the £40 you invested in TruePaint.

First impressions always count and the quality of the packaging is higher than many ST packages costing several times more.

The program is attractively presented in a sturdy, glossy box that contains three double-sided disks in a hard plastic wallet, a spiral-bound A5 manual running to over 160 pages

and a HiSoft registration card. I mention the registration card for several reasons, not least because support from HiSoft does mean just that.

For thirty days after first registration, you get technical support and help in putting the product to good use. After that you have the option of joining one of HiSoft's paid support services, offering both telephone and on-line support, as well as a free newsletter and regular upgrades.

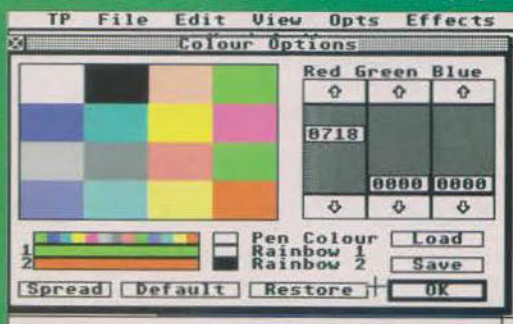
Installing the program is easy – the customised installation routine does

TRUE COLOUR

What exactly is true colour? The human eye can distinguish around 400,000 different colours in total, so in order to accurately represent real life, at least this number should be displayed on screen at once.

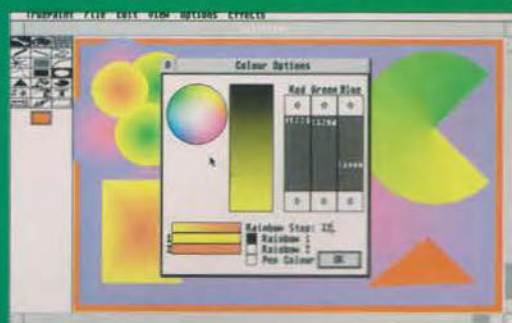
In monochrome mode only two colours are used; black and white. Even in ST low resolution, only 16 colours can be displayed on screen though the TT can display up to 256 in low resolution. These are all palette-based modes – you pick

TruePaint in ST low resolution – 16 colours can look pretty miserable.



a colour from the palette for each item in the picture and while you can usually edit the colours, it does place limitations on the realism of the images you can produce.

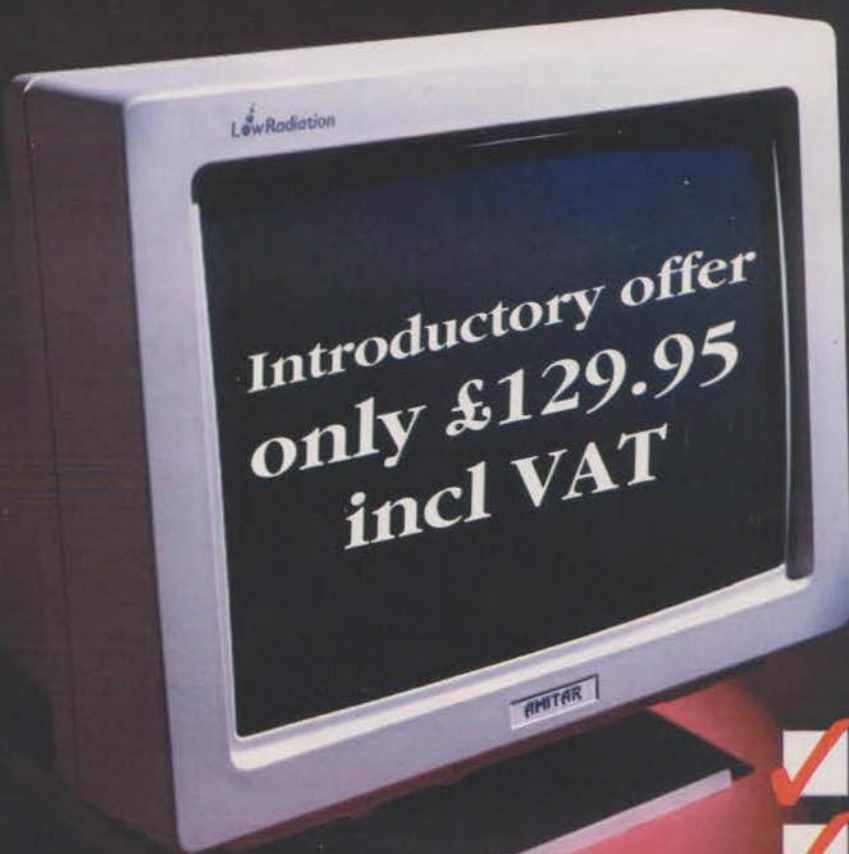
The Falcon can handle up to 16 bits of colour, allowing up to 65,536 different colours to be displayed at once from a range of over quarter of a million. There is no palette as such – a colour wheel is used instead to select colours based on the percentage of red, blue and green. In practice, this is so close to "true colour" that most of us will never know the difference!



The true colour wheel on the Falcon – you're unlikely to run out of colours!

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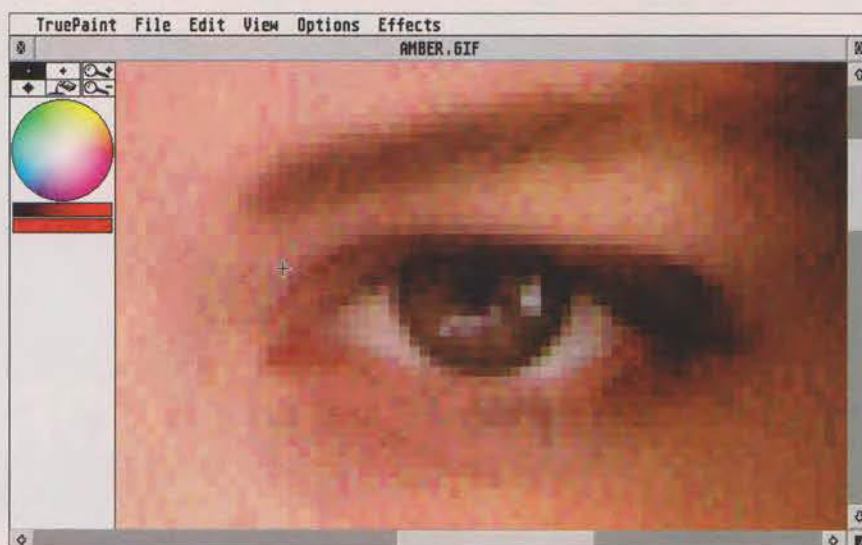
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Close ups can be positively eye-catching!



all the work for you, installing TruePaint on hard or floppy disks as required. You can also view the Readme file to note any additional changes not described in the manual or use the on-line help facility. The program files, file import modules and sample files can be kept in different folders on different partitions, if necessary. The file selector can be used to select the desired location, and the amount of required disk

space is prominently displayed. For those with only limited storage space, the number of installed import/export modules can be cut back too.

The program itself takes up around 500K with all thirteen import modules installed. The sample images and animations need not be installed on floppy-based systems as they take up another 1300K or so. TruePaint will run quite happily from

a single floppy disk drive and should you forget to format a disk, the installation routine will do that for you too.

LOADING PICTURES

Before considering the program proper, it is worth looking in detail at the way in which TruePaint loads and saves image files. It uses an innovative new system called the External File Management System or EFMS, a modular system designed to allow regular updating of existing import/export capabilities and the addition of new ones as the need arises. In practice, the TruePaint program uses a number of external files to interpret the various image file formats. These modules can either be stored in memory for quick access, depending on available RAM, or loaded from disk when required.

Apart from TruePaint's own proprietary animation and image formats, TPA and TPI, thirteen other file formats can be read - Art Director, Degas (including the extended Degas format for the higher TT resolutions), IMG, Compuserve GIF, IFF, JPEG, MTV raytracer, Neochrome, PCX, Prism Paint, Spectrum 512, Targa and TIFF. The latter is the most complex as well as the most important. The TIFF format has many variations and TruePaint seems to cover most of them, being able to read

TIFFs from several sources on the PC and Mac.

TruePaint is also the first major ST application to support JPEG compression, the "lossy" compression method that is rapidly becoming an industry standard. Export facilities are slightly more limited, comprising Art Director, JPEG, MTV, Prism Paint and TIFF plus TPI and TPA, of course.

TruePaint isn't exactly fast at loading formats other than its own TPI/TPA format. Due to the complexity of the compression algorithms, loading and saving JPEG files can take ages - one sample file takes almost five and a half minutes to load in JPEG format against one and a half in GIF or TIF format, on a standard ST.

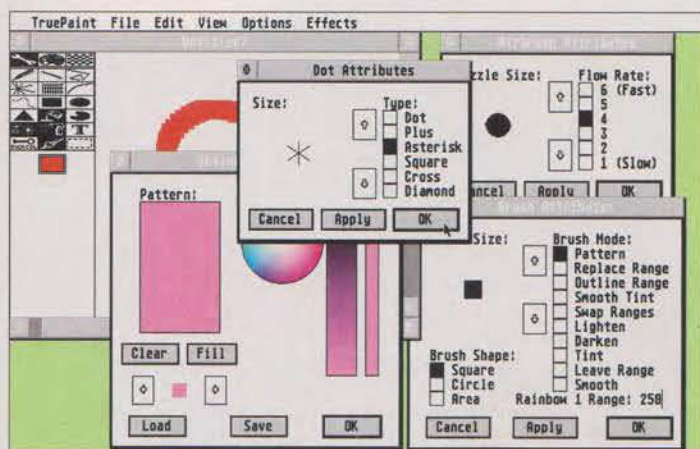
A quick comparison with several other picture viewers shows that it isn't performing too badly overall when loading colour and greyscale images. It is a little quicker than Pictswitch, for example, and slightly slower than Prism Paint but when it is loading monochrome images such as plain, vanilla .IMG files, there is no reason for it to be quite so slow. However, its own formats are very fast indeed and for most users this will be the main working file format.

It should be pointed out that TruePaint loads each image and converts it to suit the screen resolution. In other words a 24-bit colour image will be dithered to just black and white pixels in ST hi-res, which means it has limited value as a picture converter when used on most STs. In true colour mode on the Falcon, however, it really comes into its own.

PAINT TOOLS

TruePaint has a standard GEM interface with drop down menus along the top and as many open windows containing images as the operating system or memory allows. On an ST, you are limited to six but this should be more than enough. The windows can be treated like any standard GEM window - resized, moved, closed or enlarged to fill the whole screen.

Each window has a separate toolbox that can be switched on or off as



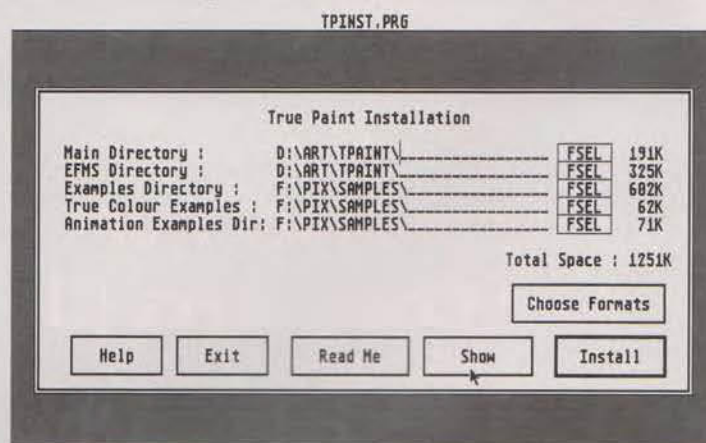
The dialogues can even be kept open while you make adjustments.

PUTTING THE SQUEEZE ON

JPEG stands for Joint Photographic Experts Group and has recently become the standard method for compressing "real world" images such as landscapes and people. JPEG is a "lossy" compression method, meaning that some of the image quality is sacrificed in order to compress it to a reasonable size. In this example the JPEG file is a third of the size of the uncompressed version.



Although the overall appearance of a JPEG image isn't changed, fine detail is lost and a characteristic ghosting appears at the edges.



Installation is a doddle.

required. The toolbox has three modes, namely drawing tools, colours and patterns, and the icons change to reflect the mode. In drawing mode there are 18 icons very similar to those found in other art packages and in most cases the settings can be altered by double-clicking to reveal a windowed dialogue box.

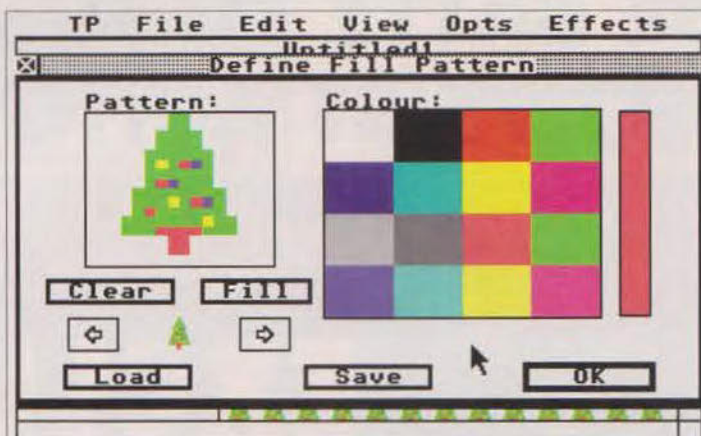
TruePaint has all the tools that you would expect to find, including composite drawing tools like squares, rectangles, polygons, segments and circles. You can also draw freehand, in straight lines, in interconnected lines (also known as polylines or K lines), or radiating lines. Curves are also well catered for as the program supports editable Bezier curves.

There are three main drawing tools, pen, brush and spraycan, all of which are fully configurable. Lines can be round-ended, straight-ended or arrowed and almost any thickness or pattern. Some odd brush shapes are also included, such as an asterisk, and all are resizable.

Thirty six standard fill patterns are supplied and up to 14 more can be defined, edited and saved, including multicoloured patterns. Regular blocks can also be cut from images and manipulated in several ways, such as shearing, stretching and flipping.

Colour handling is the program's real strong point. The rainbow facility, for example, means you can draw lines which start off as one colour and gradually change in a specified number of steps into another. Gradient fill effects can be achieved in true colour mode by filling shapes with the rainbow facility switched on. *TruePaint* also has a colour pick tool which lets you select a colour from the image rather than the palette, very useful for touching up or altering scanned images as well as everyday painting.

Text handling is fairly standard – any GDOS font can be used plus the system font if GDOS isn't loaded. However, *TruePaint* is one of the first applications to use *SpeedoGDOS* to the full. Double-clicking on the text tool reveals a large dialogue box listing all the *Speedo* fonts available and



ANIMATION

Animation means different things to different packages. To *Degas Elite* it means cleverly cycling certain colours to give the impression of movement while to others it means displaying a set of consecutive images onto the screen at constant speed, very much like a slide show.

At the top end of the range are sophisticated modelling and keyframe animation packages like *Chronos-3D* and *DA's Vector*, which extrapolate the frames in between those drawn by the user.

TruePaint uses the slide show technique – additional frames are added after the first one and when the sequence has been created and saved, it can be played back at any speed defined by the user.



An animation frame – part is rubbed out and then redrawn in a slightly different position to represent a small movement.

they can be scaled from 4 to 256 pixels tall or wide. This use of the *Speedo* scaler makes it the most flexible of any ST art package in terms of text handling – only the likes of *DA's Vector* and *Didot LineArt* offer scalable fonts and they are vector graphics packages!

VERDICT

TruePaint is a home-grown product priced firmly at the bottom end of the graphics market. That said, HiSoft

has not skimped on the manual or packaging and it certainly isn't an inferior product. In the preceding week or two I've heard nothing but scepticism from some in the ST world who point to its primitive paint tools and unimaginative interface. "Just another paint package," they say. "At least you can buy it, which is more than you can do with some other Falcon programs," I heard one cynic argue.

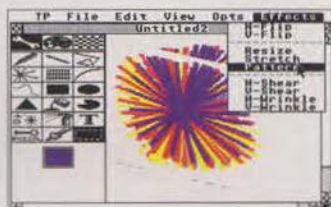
Speak to the users though, especially those with a Falcon, and the picture changes. *TruePaint* does look dull and boring, a bit like a clumsy first attempt at shareware, and there are some areas that could do with improvement such as the inflexible zoom system. But scratch under the surface just a little, turn up the colour, and it really is a dream package.

Just look at what you get for £40 and then look at what else you could buy for the same money. The manual is excellent, with good tutorials, and there is full support here in the UK. It works on any machine with 1 megabyte or more of RAM, including *MultitOS* and the Falcon. It features full support for the new *SpeedoGDOS* and it can use the whole range of top quality Bitstream fonts. You can load existing images, including scans, in

User-defined fill patterns.

thirteen different formats and save in half a dozen or so, including the vital industry standard TIFF format so widely used in DTP.

If you're in the market for an ST paint package, it's well worth considering though it won't win all the prizes. On a TT or a supercharged ST with extra graphics hardware, it'll look an awful lot better and save you a few pounds in the process (the only real competition is *Prism Paint* at £60 plus). If you're one of the lucky few with a Falcon, it'll certainly brighten up your day!



Block manipulation in *TruePaint*.

Works on any Atari
Speedo font handling
Supports many formats

PROS AND CONS

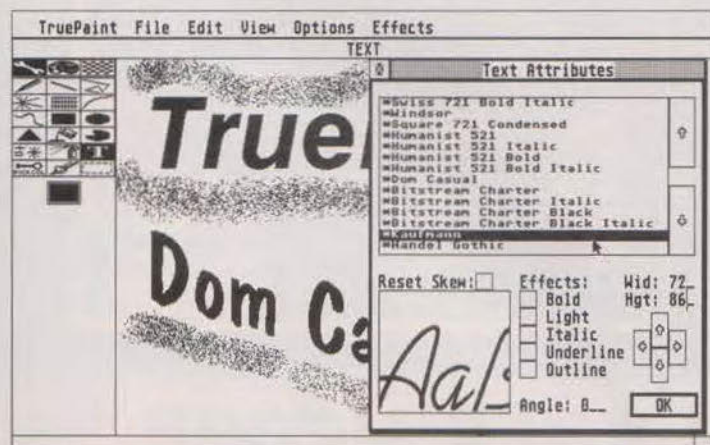
Dull interface
Some slow loading
Poor zoom

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ARC15 CYBERTECHNICS. Fast & furious arcade game. CRAZY ERBERT fast Q'bert clone. SLUG to fill the disk.

BRD09 MILE. Excellent board game. D FISSION. Super Othello type game. TUNNEL VISION. Excellent maze game. 3 jigsaw puzzle games. ST TIC TAC TOE. HIGH-LOW. BLACKJACK and more on this disk.

BRD12 TOWER POWER. Super strategy game runs on 512K, 1Mb and 2Mb machine. Optional data disk available as BRD13.

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WRIGHT ISSUES

Looking forward to MultiTOS



Hands up if you can remember your parents saying to you, "I've only got one pair of hands!" or "I can only do one thing at a time, you know!" I even found myself saying it to my daughter yesterday and can vaguely recall holding

four breakfast dishes in one hand and a lunch box in the other while trying to shut the fridge door with my left foot. Then she asked me to clean her shoes. It's very difficult inflicting instant pain on someone when you're in that sort of position - but I'm happy to report success.

All this anecdotal nonsense was meant to bring us smoothly round to the subject of multi-tasking - doing more than one thing at a time. Thanks to MultiTOS, this is now a real possibility but it is just as fraught with danger as balancing on one leg in the kitchen trying to kick daughters...

Everyone multi-tasks these days - or so PC and Mac owners would have you believe. However, there is a fundamental difference between multi-tasking, which is doing several things at one, and task-switching which is moving from one task to another.

Back to the kitchen. A multi-tasker would be washing up with the left hand, frying chips with the right and mopping the floor with one or more feet. Of course, it's pretty well impossible. The human brain can't realistically cope with more than one task at a time (if you can I'll be glad to hear from you).

What really happens is that you run to the sink, turn on the taps then run to the cooker and check the chip pan. When you're happy that the chips are sizzling nicely, you grab the mop and give the floor a quick wipe. What you are actually doing is task-switching - giving each task your undivided attention for a short period of time and then moving on to the next.

In fact, this is what MultiTOS does, only it swaps between applications so fast that you barely know it's doing it. You can format a disk and while it is formatting, load a word processor and type out a letter. It sounds great but in practice each extra task slows the whole shooting match down. With three resource-intensive tasks running on a standard ST, you might as well give up and go home.

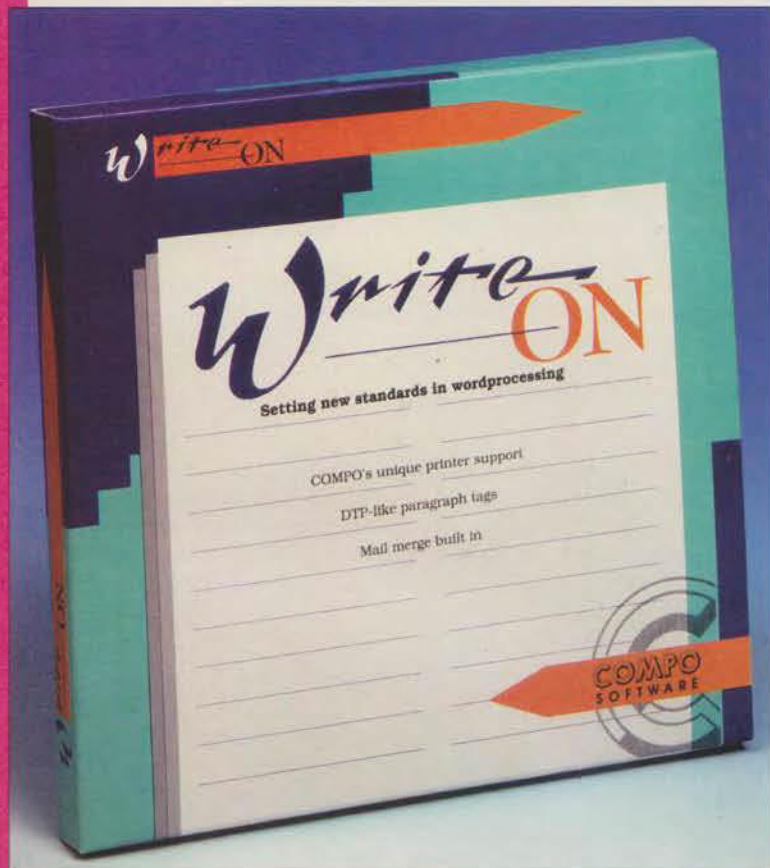
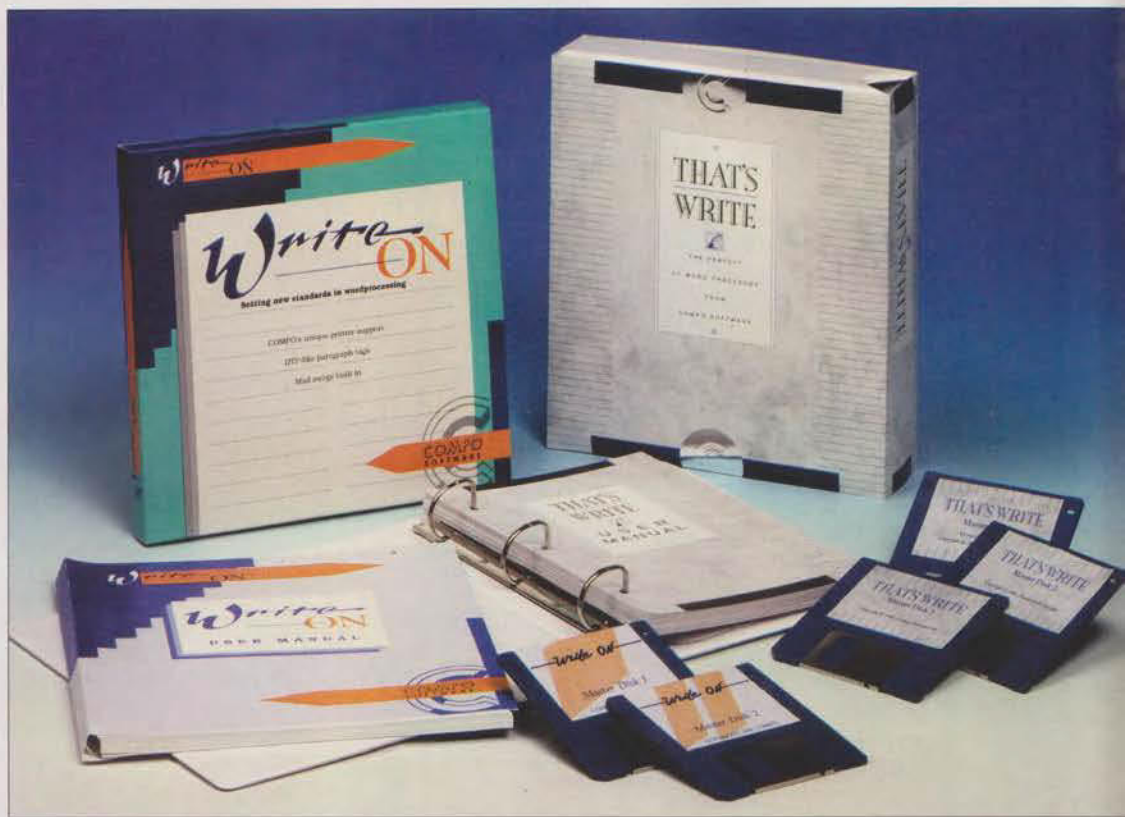
No, the strength of MultiTOS is not in multi-tasking per se - it's in task-switching. You can spend most of the day with a spreadsheet, a word processor and a DTP package up and running, swapping between them as and when you need to. In this way you can increase productivity without having to grow that second pair of hands. When the real multi-tasking environment appears, I'll be first in the queue.

Andrew Wright is a regular contributor to various Atari, PC and DTP magazines and has been writing for ST Review since its inception. In his spare time, he runs a home-based desktop publishing business concentrating on newsletters and invitations for his daughter's birthday parties...

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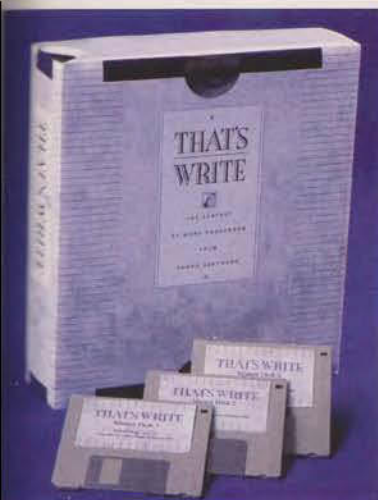
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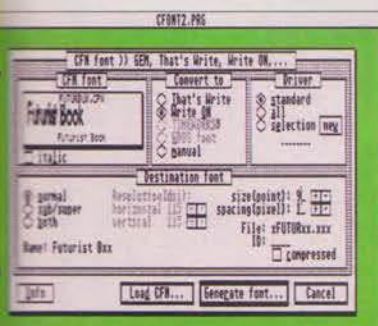
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After TruePaint,
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and disappearing
faster than good
programmes on TV,
Tony Kaye brings
you a round-up
of what's hot
and what's not...

ARTY FACTS!

Many art programs have appeared in the last eight years, from *Degas Elite* and *Neochrome* through to the latest Falcon-compatible package, *TruePaint*. The question is – which one to buy?

This is where the problems start. Many of the packages are no longer available – even *Degas Elite*, that gave the ST a standard file format, has gone the way of the Dodo! So where do you go to find out how to invest your money? *ST Review* of course!

Here we look at all the main programs, past and present...

DEGAS ELITE

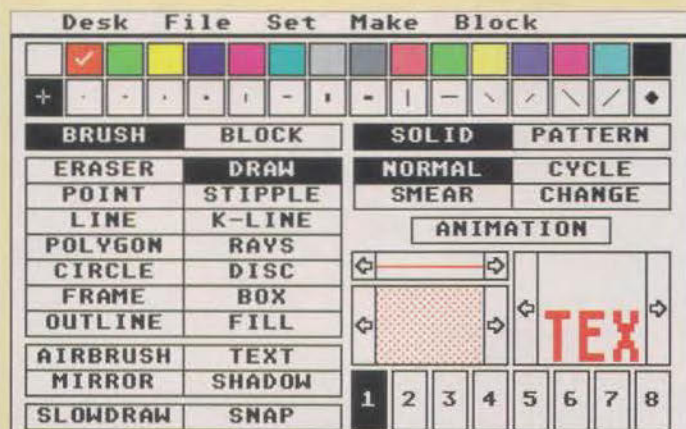
IN BRIEF: *Degas Elite* is probably the best known art package around. Written by Tom Hudson, *Degas* has been with us almost as long as the ST itself. In fact, the file format has become a standard, with just about every other package following. *Degas Elite* being able to handle P11, P12 or P13 files depending on the resolution. In fact, if you need to transfer standard files from one package to another, *Degas* is probably the format to use.

The program works in all three resolutions and will give 16 colours in low resolution, four in medium and just black and white in high res. Several effects are available including Mirror and Horizontal/Vertical Flip along with many others that have now become standard in art packages.

As a program, *Degas Elite* is basic, but adequate. It has all the features you need to create a masterpiece, but doesn't support STE-specific facilities and only has a limited number of functions. It is no longer available commercially, but some retailers may still have the odd copy in stock.

ST REVIEW COMMENT: It's a shame that this *Degas Elite* was never properly updated. It was definitely the best of its era and, with upgrades, would probably still be the best.

000



The selection screen from *Degas Elite* is not available at the same time as your picture.

NEOCHROME

IN BRIEF: *Neochrome* was Atari's answer to *Degas*. Packaged with some STFMs, *Neochrome* is another versatile package that is well supported. NEO files are, again, very transportable between different programs.

There has been a lot of speculation concerning the various versions of *Neochrome*, but it is not PD. Atari hold the copyright, although the product is no longer generally available. Goodmans International have a limited number of the packages complete with an 80+ page manual for £3.95 and at this price, it may well be worth adding to your collection.

Neochrome has a split screen allowing you to see the tools and the picture you're editing at the same time. The controls, as with most of these packages, take a little while to get used to, but once mastered can be used to create some very pleasing results. One major drawback of *Neochrome* is the lack of an airbrush feature which is commonly used to add texture to a picture.

ST REVIEW COMMENT: A good product with some worthwhile features. As part of the "Welcome" package with new STs, it's a good way to get started in computer art.

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Very simple controls make *Neochrome* a good starter package, but with limited functions.

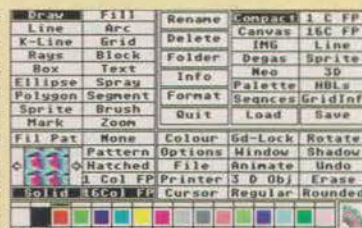
CANVAS

IN BRIEF: *Canvas* is a feature-packed program that falls down through being one of the most awkward to use. While numerous functions are available, including 3D Objects, Animation and Shadow, the whole package is rather clumsy and you're likely to have problems finding your way around.

The main screen is similar in style to *Degas* and the file formats are well supported with options for .IMG and compressed files included. This is a fair beginners' package, but not the best for general drawing – and certainly not for advanced work.

ST REVIEW COMMENT: Not a good example of an art program – creating a masterpiece would be tiresome, to say the least.

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Complicated selections make *Canvas* awkward to use.



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- L.A.P.D. pays a royalty to the authors of programs in this section for each copy sold, hence their price which is slightly above the normal P.D. titles.
L.41 MURDER ON THE ORION EXPRESS: Murder solving game set on an interstellar spacecruiser. (£3.00).
L.40 GRIDWORD: Puzzling word game by Nica Byter. (£2.50).
L.37 SUPER FUN: Follow up to Super Spell. Excellent teaching program for the young. (£2.50).
L.31 COURSE OF AZTEHL: Fantasy trading/arcade game. (2 disks, £4).
L.33 QUEST KNIGHT: Fantasy exploration game. (£2.50).
L.22 GRAND PRUX MANAGER: Grand Prix management simulation. Employ drivers, mechanics, etc., test cars and parts, then race in a full grand prix season! (2 disks £4.00).
L.20 SUPER SPELL: Very good teaching program for 4 to 9 year olds by Lexisoft. (£2.50).
L.34 LOGICA: A 3 Phase puzzle game. (£2.40).
L.17 ADDRESS BOOK: Neat database for storing, sorting, etc. (£2.50).

SHOESTRING EDUCATIONAL SOFTWARE (£2.95 each)

- L.01 ROBOT MATHS: Maths tutor for children aged 6+.
L.02 MOON LETTERS: Spelling game for ages 5+.
L.03 PICTURE MIX: Jigsaw puzzle type game for ages 6+.
L.04 ROBOT WORDS: Hangman brought up to date.
L.06 ALPHABET MIX: Simple jigsaw puzzle type game for early learners.
L.10 DROP DOWN WORDS: Spelling/memory game for youngsters.
L.12 MATHS FUN I: Latest Shoestring title for children 4 to 7 years.

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TEACH YOURSELF MACHINE CODE

Learn to program like the professionals with ZZ Software book and companion disk 'INTRODUCING ATARI ST MACHINE CODE'. Be led, step by step into the secrets of programming the ST in its native 68000 assembly language. All you need to get started right away. £19.95.

AUTHORS

L.A.P.D. are always on the look-out for new material to be included in their comprehensive catalogue of P.D., shareware and licenceware titles. If you have produced anything that you consider worthy of release either as P.D., shareware or licenceware then get in touch to discuss it with us. We can guarantee you a worldwide exposure for your program if it makes the grade.

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CUSTOMERS WORLDWIDE ARE FINDING WE ARE THE ONES TO DEAL WITH FOR QUALITY AND SERVICE



HYPERPAINT

IN BRIEF: Atari updated their give-away package and substituted *Hyperpaint* for *Neochrome* for a while. *Hyperpaint 2* is the same program, but updated to work on the STE. For an Atari product, it is a surprisingly good starter package and easy to use due to the GEM interface.

In use, the package is quite flexible, but there are some minor niggles. The screen doesn't scroll when you hit the edge while using a tool – drawing a line is a good example. Not something you couldn't live with, but annoying, just the same. The zoom facility also leaves much to be desired...

ST REVIEW COMMENT: *Hyperpaint* is very much a run of the mill program and while there is nothing about the package that would cause you to condemn it, there is nothing to specifically commend it either.



Working on a compressed Degas picture from within *Hyperpaint*.

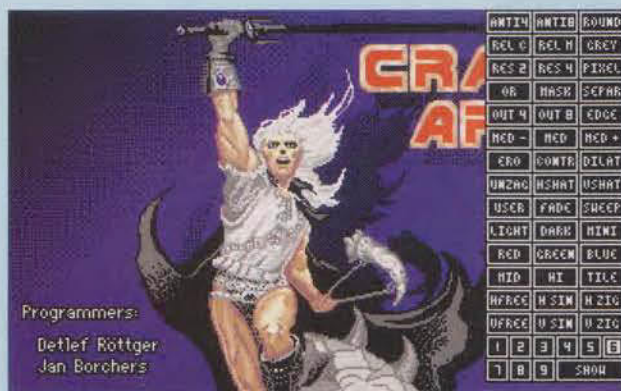
CRACK ART

IN BRIEF: Wow! A totally new concept in art packages! Just when you thought there was nothing new to offer in the art package department, along comes *Crack Art*.

From the moment you load the program (low resolution only), you get the feeling that you're in for something special and you aren't disappointed. The work screen is a work of art and the controls are endless. Once you've finished loading all of your favourite pictures from other packages, you can start to manipulate them in virtually any way you wish – from vertically flipping the image to processing it in practically any manner you wish.

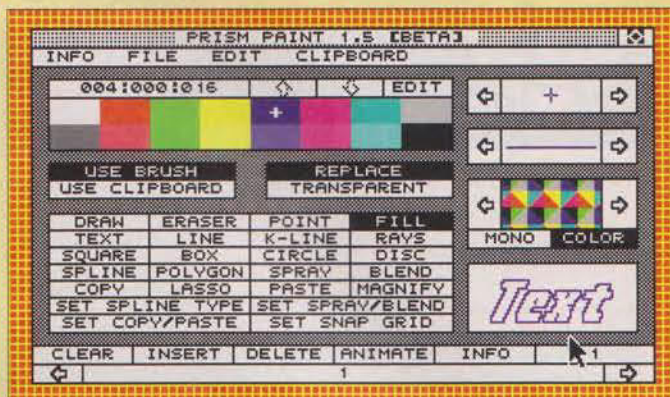
There is one big disadvantage – the manual is in German at the moment.

Crack Art's control panel is as good as anything you'll pay 10 times as much for and, in most cases, even better!



A dazzling array of effects – and you can even see the picture while you decide which effect to use!

PRISM PAINT



Similar to *Degas Elite*, but *Prism Paint* allows the tools and the picture to be visible at the same time.

IN BRIEF: A recent addition from the USA, *Prism Paint* is a basic package with a similar feel and range of functions to *Degas Elite*. Some advanced functions have been added such as animation and this makes the program look very attractive. However, when you start to use it you realise that there are some basic tools missing like extended palettes or multi-coloured brushes.

Prism Paint works with the ST and the TT, taking advantage of Fast RAM on the latter. The animation feature is very easy to use and results are impressive. All in all a good, but not outstanding, package.

ST REVIEW COMMENT: *Prism Paint* is an adequate painting package and will do most of what you expect of it but is let down by the lack of certain basic tools – a bit like buying a car that has a sunroof and stereo fitted, but no heater.

However, the big plus is that it's free! Well, not exactly. It's shareware, which means that you can get it from a PD library and, if you like it, send 20DM (about £8) to the authors in Germany. It has to be worth encouraging authors who can turn out programs of this quality...

ATARI ST BUDGET BUY

ST REVIEW COMMENT: Part with your money now. Do not pass Go, do not collect £200. This has to be the best tenner you could ever spend if you have any interest in graphics at all.

Crack Art is, without a doubt, a superb ST art package. The only competition is *TruePaint*...



DELUXE PAINT

IN BRIEF: Electronic Arts entered the art arena with this package, the first to offer any major advancement for some time. Originally an Amiga program, this was the one that many ST owners wanted to get their hands on.

The bad news is that *Deluxe Paint* has now been de-listed due to Electronic Arts' departure from the Atari market, so a copy will be hard to find. However, the manufacturer does have a few left and some retailers have copies, but if you want one, you'll have to hunt around quickly. Programs of this quality don't last long.

Deluxe Paint is probably the best all-round art package with enough features to keep even a professional artist happy. The range of controls is excellent and the general feel of the program is friendly and easy to manage.

ST REVIEW COMMENT: If you're looking for a good general purpose art package, *Deluxe Paint* is worthy of careful consideration. But you'll have to be quick...

0000



Deluxe Paint never quite lived up to expectations, although the quality was good.

CYBER PAINT

IN BRIEF: Part of the much larger *Cyber Studio* suite of programs, *Cyber Paint* is an excellent paint package in its own right. It even provides you with facilities to animate your work by building up a series of frames and running them one after the other.

All of the functions you'd expect to find in a paint package are here, including the facilities for airbrushing and streaking (drawing in a varied colour brush). As with the other packages, the ability to add text is included and you can also import your own with many different file formats being supported.

Features such as Distort, Move, Superimpose and Resize are incorporated as well as the ability to import sequence files from CAD-3D and so create cartoon-style cell animations.

Available on its own for around £49.95 from GST Software or as part of the *Cyber Studio* package, this is an ideal package for the budding "Disneys" out there.

ST REVIEW COMMENT: This is a superb package for the more advanced user and the advanced animation features are well worth experimenting with.

0000



As part of a comprehensive suite of programs, Cyber Paint is a great painting package.

SPECTRUM 512

IN BRIEF: At last, a program that takes advantage of the graphics capabilities of the ST. *Spectrum 512* can actually display and use 512 colours on screen so allowing for more detail and a much higher quality of picture.

The program, from Antic Software, was released in 1987 and incorporated two AUTO folder programs. The first makes the screen larger (60Hz) while the second interlaces the screen to access the extra colours. Files have the extension .SPC but others can be imported and enhanced with *Spectrum 512*'s extra features.

All packages have their own unique points, and the extra colours make this an artist's tool rather than a general utility. There is, however, one drawback – you can't easily use the pictures in other programs, but this is a small price to pay if pure art is what you're looking for. The copy of *Spectrum 512* used for this review did not work on the STE and as there is no-one to update it – this could well be why it's no longer available. If you find a copy, check it out before buying.

ST REVIEW COMMENT: Another program for the more serious user. The lack of portability make this an artist's package rather than one to use as a tool.

0000

The control panel from Spectrum 512.



NAME	PIC FORMATS	COMMENTS	RATING
DEGAS ELITE	.PI?, .PC?, .NEO, .PIC, .IFF	GOOD, BUT DATED	***
NEOCHROME	.NEO	GOOD STARTER PACKAGE, BUT LIMITED	***
CYBER PAINT	.PI?, .NEO, .PC?, .SEQ	WORTHWHILE FOR ANIMATION AND GENERAL DRAWING	****
SPECTRUM 512	.SP?	GREAT IDEA, BUT NOT FOR THE STE	****
HYPERPAINT	.IMG, .PI?, .PC?	ADEQUATE, BUT NOTHING SPECIAL	***
CANVAS	.CPT, .FUL, .CNV, .IMG, .PI?, .3D	LIMITED AND HARD TO HANDLE	**
PRISM PAINT	.PNT, .PI?, .PC?, .NEO, .IFF, .GIF	BASIC, GOOD BUT INCOMPLETE	***
DELUXE PAINT	.IFF, .NEO, .PI?, .PC?, .DFT	HARD TO USE BUT GOOD FOR BASIC ART AND ANIMATION	****
CRACK ART	.CA?, .PC?, .PI?, .IMG, .SPC, .NEO, .IFF	EXCELLENT PROGRAM AT ANY PRICE	*****

SpeedoGDOS is Atari's latest attempt to replace GDOS. Ofir Gal considers how well it fares...

LESS HASTE, MORE SPEED!

FontGDOS and FSMGDOS, Atari's replacements for the original GDOS, were viewed briefly in issue #12. As FSMGDOS was too slow and memory hungry Atari never released it, much to the disappointment of many ST owners. SpeedoGDOS is licensed from Bitstream and, on paper, promises to deliver what GDOS, in all its incarnations, has never quite managed.

Included as standard with current Falcons, it is not yet clear how SpeedoGDOS will be distributed to non-Falcon users.

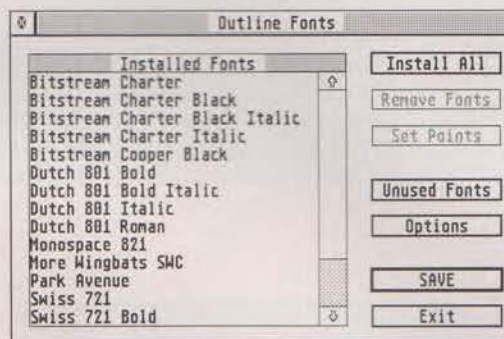
INSTALLATION

SpeedoGDOS comes on four floppy disks and is designed for use with a hard drive, a likely trend with many future programs. SpeedoGDOS requires almost 3 megabytes of disk space for the full installation which includes 14 printer drivers and 18 fonts. It is, of course, possible to remove unwanted printer drivers to save on disk space once installation is complete.

The install program is simple to use. It senses if there is a previous GDOS installation on the disk and gives you the option of backing up the original files. Installation commences once the paths for fonts and required printer drivers are selected and an alert box pops up asking you to re-boot the system when finished.

WHAT IS SPEEDOGDOS?

In short, it's a powerful extension to the operating system. Like GDOS, it allows for the display and printing of bit-mapped fonts which most ST users are familiar with. Additionally, outline fonts are supported and a



Fonts can be enabled and disabled using the Outline accessory. The various options allow you to use SpeedoGDOS to the full.

selection of 14 scalable fonts are included with the installation. These include the familiar range of Swiss, Dutch, Mono-Spaced and Symbols as well as more unusual ones such as Park Avenue and Cooper.

SpeedoGDOS uses a font cache to speed display and printout. Each font can be displayed in any point size without the need to have a font installed for each size or printer resolution as the required font size is created on the fly. Each character has to be built from scratch so a cache is used to store the frequently-used fonts for speed. When the cache is filled, the least-used font is discarded to make space for the new one. The bigger the cache size, the more fonts can be stored and the greater the speed improvement.

Two desk accessories are included for fine adjustments of the installation. The current printer driver can be changed with the Drivers accessory which can also switch between

draft and final quality modes. Outline enables or disables fonts as well as adjusting the size of the cache and allowing it to be trashed or saved to disk. There is also an option to generate width table files.

USING SPEEDOGDOS

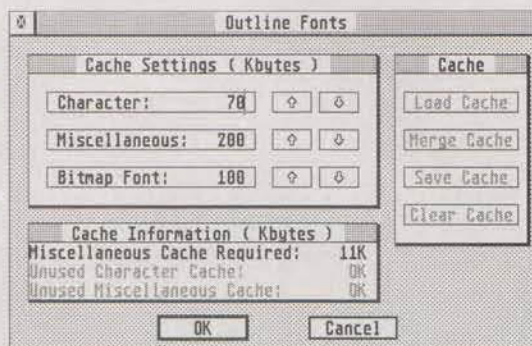
Any program that works with the old version of GDOS should run with SpeedoGDOS although it may not always be capable of using the font scaling mechanism. A good example is WordFlair, which uses scalable fonts but whose performance under FSMGDOS is rather slow. When running under SpeedoGDOS, WordFlair is transformed – screen updates and scrolling are very fast and output quality is superb.

It took almost ten years to deliver, but at last the ST has a proper type manager. Now all we need is for programmers to implement it to its full potential...



Both accessories supplied with SpeedoGDOS can also run as stand-alone programs. The Drivers accessory is used to change the current printer without rebooting.

The cache plays an important part in the installation, being a compromise between font sizes and available memory.



WHAT'S IN A NAME?

GDOS stands for Graphics Device Operating System and is an extension to the built-in operating system. As its name suggests, it enables programs to display and print fonts and graphics. A GDOS installation normally consists of GDOS.PRG, a collection of fonts, a printer driver and the infamous ASSIGN.SYS file which contains the information that GDOS needs for its operation.

GDOS was intended to be used by every program that displays fonts or graphics but was slow and lacking in features such as font scaling. As a result, various GDOS replacements appeared over the years and popular programs like Calamus and Pagestream resorted to using their own graphics drivers. This meant that users had to keep several versions of GDOS and fonts in different formats to be able to run their favourite programs.

SpeedoGDOS is a true solution. While maintaining a degree of compatibility with previous versions, it is much faster and easier to use. In time we may see programs like Calamus, Calligrapher and That's Write adopting this new system. After all, Mac and PC users have had the benefits of a standardised font management system for years...

THE BEGINNERS GUIDE TO STOS BASIC

A complete programming course for the Atari ST/STE.
618 Page, ring-bound course manual + 2 double-sided disks.
Over 190 programming examples.

The Beginners Guide to STOS Basic introduces the reader in a step-by-step fashion to what is one of the most powerful and versatile programming languages available for the Atari ST range of computers - STOS BASIC.

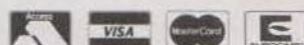
Learn how to produce shoot-em-up games, art programs, junior educational programs, GCSE mathematics programs, databases, word processors, musical programs and much much more.

The course takes the newcomer from basic principles through to the development of complete programs. A practical approach is adopted throughout with the emphasis being on using the computer rather than wading through reams of theory. Programming should be fun, and with this in mind, the course tries to cover as many interests as possible.

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OPEN HOUSE

At what stage
does software get
reviewed in a
magazine?



With new products being pushed to the fore perhaps a little too early, at what stage do we actually inform the reader? With so many different magazines available,

pressure exists to be the first to review products, be they games or serious packages.

Whether we're reviewing a £300 piece of hardware or a £1.75 PD program, integrity has to be the name of the game. We know that other magazines review games and serious software costing by using a version from another format - Amiga or PC perhaps.

This is totally unacceptable to the ST Review team. We may not get there first, but at least our reviews are credible.

I'll give you a good example. A freelance writer reviewed a game for us back in the old EMAP days. During the course of the review, he wrote that there were some extra sound features available if you were using a one megabyte machine. Many people bought memory upgrades to take advantage of this and were most upset when the extra sounds failed to materialise. Others who already had the extra memory also contacted us to complain. It turned out that the game had not been finished in time for the review and so the writer had used the Amiga version!

Do we sacrifice accuracy for speed or do we create a name for ourselves as being honest and reliable? Personally, I'd go for the latter every time! If a product hasn't been finished, I'd rather tell you - that's what a Preview is for. Based on publicity material and screen shots, it's a chance to get the feel of a program before it's completed. The fact that the finished game may vary slightly is then more acceptable and all of the screen shots used in ST Review are genuine ST shots, unless otherwise stated.

We pride ourselves in our honesty. I get upset when I pick up a rival magazine and see an unavailable product being reviewed, a fact we are often aware of but can do little about - a prime example of the reader being cheated! Admittedly, we have made the odd mistake in the past, but we would NEVER intentionally mislead you.

Well, that's me climbing down off of my soapbox for this month. Next time, I'll pick a lighter subject - promise!

Tony Kaye is deputy editor of ST Review, having originally joined as Staff Writer in June 1992. You may not see his face very often, but other parts of his anatomy are usually in view - especially his hands in the photographic step-by-steps...

Family Roots

Family Roots is an invaluable aid to both professional and amateur genealogists. It is designed around an integrated workbench which allows you to create your family tree graphically on the screen by linking directly between the individuals. The powerful database can be viewed instantly at the click of a mouse button. The search function enables fast cross referencing and multiple scanning.

What The Press are saying about Family Roots:-

"I can certainly recommend it if you are working on a family history - Family Roots is going to simplify your record keeping enormously and it is a pleasure to use." - Micro Computer Man.

"Certainly more than you'll ever need, unless you manage to trace your relatives back to Fred and Wilma Flintstone." - Atari ST User.

"All in all, the best genealogy program available for the ST and well worth the money if you are considering tracing your family." - ST Forum.

To order your copy of Family Roots, send a cheque or postal order for £24.95 to the address below. A disk with useable demos of Family Roots, Around The World and Professional Virus Killer is available for £1.00.

Around The World

Floppyshop are pleased to announce the release of their first commercial game, Around The World is an arcade adventure in which you assume the role of Phineas as he negotiates his way through 40 taxing levels of sheer enjoyment and addiction. During your adventure you will face many dangers and surprises including toxic waste in the Oceans and rock falls in the Jungles. Locate concealed switches to unlock additional caverns and search for keys which will reveal hidden treasures and further your quest. Can you rise to the challenge and survive this epic journey by completing all 40 levels?

The game features a large playing area, devious puzzles, creeping fungus, rock falls, explosions, an original soundtrack, 50 entry high score table, 40 levels of increasing difficulty, over 40 colours on screen and much more!

Around The World was programmed over more than a year by The Pixel Shop, better known for their many Budgie UK titles under the name of The Happening Band.

To order your copy of Around The World, send a cheque or postal order for just £9.95 to the address below. UK postage free, please add £1.00 for Europe or £2.00 for the rest of the world. Credit card orders welcome. A disk with useable demos of Family Roots, Around The World and Professional Virus Killer is available for £1.00.

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After many years supporting the Atari ST, Floppyshop are now the largest stockist of high quality, low cost software in Britain. Our full catalogue is disk based and simple to use. It has a powerful search facility and can output to printer if required. Floppyshop are also distributors of the Budgie UK and Shoestring Licenseware ranges. Budgie produce games, demos and utility software. Shoestring specialise in educational software for young children. Only approved distributors like ourselves are allowed to sell these titles. For a free copy of the catalogue disk, send us a blank disk with a note of your name and address. Alternatively you can send a Cheque or PO for 80p and we'll supply the disk. Please make Cheque or PO (UK currency only) payable to Floppyshop. Major Credit Cards welcome. UK Postage FREE, Overseas Postage for Europe £1.00 per order, Rest of World 10% of order value (minimum charge £2.00).

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WIN A DREAM ...anywhere

Later this year one of our readers will be invited to go on a holiday of a lifetime – to just about anywhere in the world. It could see you basking in the Bahamas, or cruising in the Caribbean. It could be ambling around Australia, or night-clubbing in New York. Even trekking in Tibet, or pottering around the Pyramids. Literally, the world is your oyster! It could be a holiday for one. Or for a whole family. Just as you wish – providing the total cost comes to no more than £3,000.

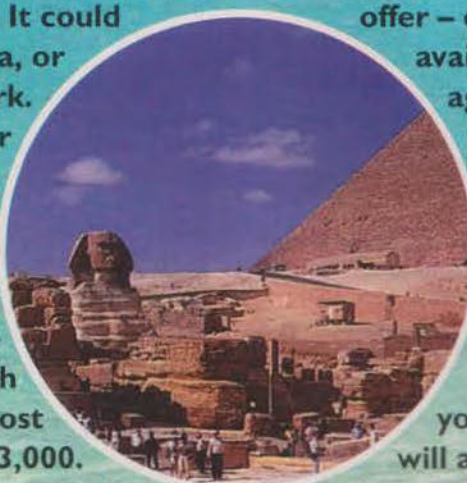
How do you go about winning such a fantastic invitation? Simply by completing the coupon opposite and handing it in to your newsagent. He will then enter it for

this unique competition, in time for the draw which will take place on July 12.

If you win you will be asked to select the holiday of your choice from any you see on offer – either nationally advertised or available from your local travel agent. There will be absolutely no restriction on the location, or the company you choose to provide the holiday.

It will be entirely up to you to decide which is the right holiday to suit your tastes.

And that's not all. As a thank you to your own newsagent, we will also be sending him two free tickets for a fabulous holiday in Paris, staying at a top hotel, going on a grand sightseeing tour and taking in a spectacular show at an exotic night club!



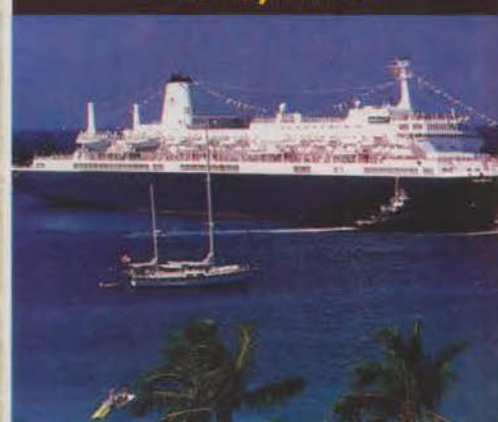
£3,000 could take you here...



...or here...



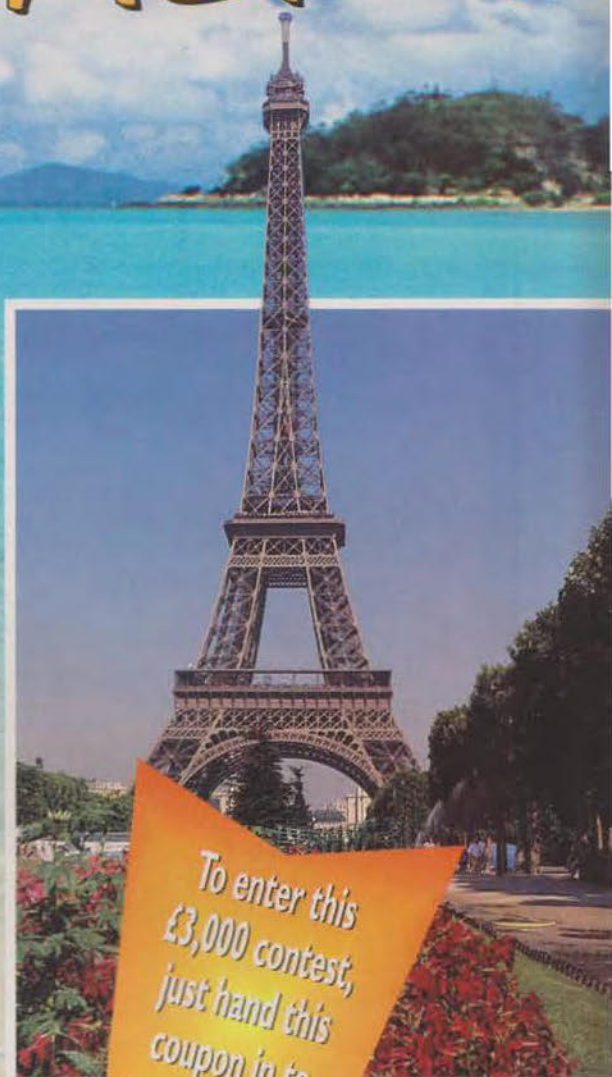
...or anywhere!



AND IF YOU WIN, THERE'S A HOLIDAY

A woman with dark, curly hair is seen from behind, standing in shallow, clear water. She is wearing a bright yellow, one-piece swimsuit with a low back. The water is a light blue-green color, and the background is a solid, bright blue sky. The overall mood is serene and summery.

SEGA – All the Sega games machines have their champion in *Sega Force* (£1.95), with *Mega Action* (99p) serving the needs of Mega Drive owners (to be launched on May 20).



To enter this
£3,000 contest,
just hand this
coupon in to
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MR NEWSAGENT: Please confirm this order and return the form to your wholesaler for entry in the prize draw

PARIS FOR YOUR NEWSAGENT TOO!

Upgrading to one megabyte of memory is easy in most cases. Tony Kaye shows you how...

IMPROVE YOUR MEMORY!

It is becoming essential to have at least one megabyte of memory in your ST — even games are starting to require this as a minimum.

Most serious programs need at least a megabyte to run and the more, the better. With a hard drive, system patches, alternative desktops and accessories, you can run out of RAM very quickly.

You can upgrade your STE for under a tenner and the STFM for less than £35. The STFM used for the upgrade Step-By-Step was originally upgraded at a cost of £99 and involved soldering 16 chips and 16 capacitors to the motherboard! Of course, there is no way you could increase the memory above one megabyte using this method, so it had to be replaced to allow further progress.

We show you how to increase your memory to one megabyte and beyond using SIMMs in the STE and the XtraRAM Deluxe board in the STFM. Both of these will let you expand up to a total of four megabytes at a later date if you want to.

To save space, we haven't printed



Increase your memory to up to four megabytes!

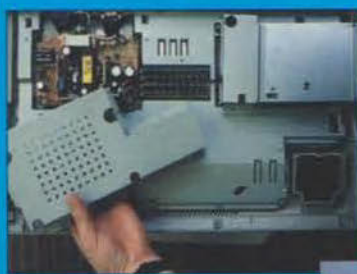
GETTING INSIDE

- Remove all plugs, leads, mouse and joysticks from the ST and turn it upside down.
- Remove all the screws in square holes (seven in all) and the three longer screws holding the disk drive in place.
- Carefully turn the computer over and lift off the cover of the case. Unplug the keyboard and put it somewhere safe.
- STE: Unscrew the covers for the power supply and the disk drive (see the pictures to the right).

STFM: Take the power supply and drive covers off and unplug and remove the disk drive. Then unscrew the power supply (two screws at the front), unplug it and carefully remove it. Around the outside of the screen, there are several screws which have to be removed and twisted pieces of metal that need straightening. The screen should then lift off.

STE UPGRADES

Fitting the extra memory into an STE is easy. Here's how...



- 1 After stripping the ST down as described below, the cover over the power supply is removed to reveal the SIMMs slots. Notice that slots one and three are occupied.

- 2 Insert the new SIMMs chips by leaning them forwards, slotting them in and then pushing them back. Reassemble the computer and run the test program. You now have a one megabyte machine!



pictures of the case or screen being removed as we've shown this many times before. If you're in any doubt as to how to remove the case, have a look at the *Getting Inside* box.

STE owners can skip to the box on this page showing you how to put the SIMM boards into the computer. If you have SIPP, then turn the page and see what to do next.

STFM owners need to identify the Video Shifter and MMU chips. The former is easy to find as it is sited in a rectangular metal box, usually in the middle of the board. The MMU depends on the revision of the board, but is usually a square chip marked "25912" or "100109". In most machines, these chips are in sockets, but some are soldered directly to the motherboard. This is where the fitting gets slightly more complicated...

PROBLEMS

Some machines are non-standard, as some of you already know. Atari have made several revisions to the motherboards on both the STFM and the STE. There was a period when a worldwide shortage of memory caused manufacturers to buy RAM from anywhere, resulting in some STEs being fitted with SIPP memory instead of SIMMs.

Later models of the STFM board had the MMU and Shifter chips soldered directly to them. Never fear, there is a solution to every problem.

Adaptors are available at very little cost to overcome any of the normal problems. If you have an odd ST, most companies will supply the parts you need at cost.

Choosing a memory upgrade for your Atari ST?

The XTRA-RAM *Deluxe* is the answer!

Using industry standard SIMMs (like STE's) the XTRA-RAM *Deluxe* lets you upgrade all the way to 4Mb. It works with all Memory Management Unit (MMU) chip types, whether they are soldered down or socketed. If your ST has a soldered down Video Shifter chip or a 101601 type MMU chip then some soldering will be required.

Each XTRA-RAM *Deluxe* upgrade is supplied with a full two year warranty. Full technical support is simply a telephone call or letter away, whether you live in England or Singapore.

Atari ST Review: "One of the best boards available for the ST."

ST Format: "The XTRA-RAM can be fitted easily ... even by a novice." 87%

<i>Deluxe</i> with 0Mb	£34.99
<i>Deluxe</i> with 1/2Mb	£59.99
<i>Deluxe</i> with 2Mb	£119.99
<i>Deluxe</i> with 4Mb	£189.99
Plus £3 Postage & Packing per order	

Marpet DEVELOPMENTS

Searching for a reliable Clock Cartridge? The Forget-Me-Clock II is the original and best!

With the Forget-Me-Clock II plugged into your ST or STE's cartridge port, the system clock (used by the Control Panel) and keyboard clock will automatically be set at turn on or reset. No longer will you have to waste time setting your ST's clock each day.

Installation couldn't be simpler – you just plug it in and turn on your ST. With a full two year warranty, why not join almost eight thousand satisfied users?

Atari ST Review: "A good, well engineered product. Get one now." 91%

ST Format: "The famous Forget-Me-Clock II Cartridge." 89%

Forget-Me-Clock II Cartridge £21.99
Plus £2 Postage & Packing per order

Buy the Xtra-RAM STE Memory Upgrade!

There are many suppliers of memory upgrades for STE machines. Not all cater for your particular needs. Most STEs require Single In-line Memory Modules, commonly referred to as SIMMs. A number of machines require SIPs – these are like SIMMs but use pins instead of an edge connector.

Each and every STE upgrade supplied by Marpet Developments contains all that is necessary to upgrade STEs requiring either SIMMs or SIPs. This is achieved through the use of a special adaptor. Many suppliers miss these out, causing undue hassle upon receipt of the product.

ST Format Rating: "Easy to install." 86%

XTRA-RAM STE 1/2Mb Upgrade £24.99
XTRA-RAM STE 2Mb Upgrade £89.99
XTRA-RAM STE 4Mb Upgrade £159.99
Plus £2 Postage & Packing per order

Spare SIMM/SIP Adaptors £1.25 Each
Plus £1 Postage & Packing per order

XTRA-RAM +8

Marpet Developments are pleased to announce their latest new product, the Xtra-RAM +8. Available mid to late April, this 8Mb board upgrades and STE; Mega STE or Mega ST to 12Mb! Specially designed and manufactured here in England, the XTRA-RAM +8 represents a considerable investment in the Atari marketplace. Each unit carries a full 12 months warranty and, with participating dealers only, is supplied under a ten day money back offer. For further information contact Marpet Developments today!

Unpopulated (0Mb)

STE	£109.99
Mega ST	£99.99
Mega STE	£149.99

Inc. VAT @ 17.5%
P&P £5 extra

Populated 8Mb

STE	£399.99
Mega ST	£399.99
Mega STE	£399.99

Inc. VAT @ 17.5%
Free Courier Delivery

- Upgrade your 4Mb STE; Mega STE or Mega ST to 12Mb!
- Supports use of Atari TT style memory allocation.
- Supports extended memory allocation in most professional applications.
- Supplied with auto-booting configuration utility.
- Installs beneath shielding on all machine types.
- Solder free installation on most STEs; Mega ST and Mega STE models; fitting service available.
- All versions available unpopulated (use SIMMs).
- Requires TOS 2.06 ROMs – support for earlier ROMs available soon!
- No payment processed until day of dispatch! Mastercard and VISA.



Meadowfield Farm, Fellbeck, Pateley Bridge HG3 5ET

Tel: +44 (0) 423 712600 Fax: +44 (0) 423 712601

All prices subject to change with or without notice. E&OE. All goods subject to availability.



When you get your upgrade, the first thing you want to do is fit it into your computer. But what do you do if the inside of your machine is not the same as the manual suggests it should be?

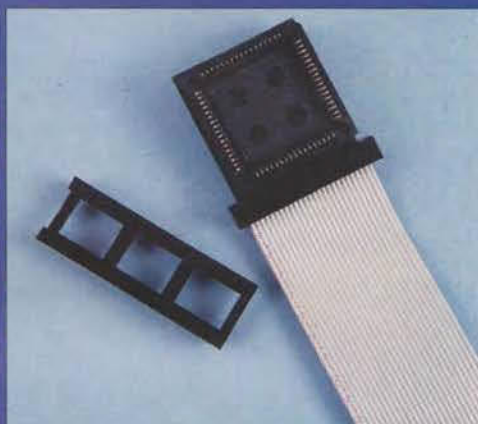
PROBLEMS, PROBLEMS!

AWKWARD CHIPS

The first thing to do when you open up your STEFM is to identify the type. There are three main kinds of motherboard and these are outlined in the manual. The only real difference is the positioning of the MMU chip. The Video Shifter chip will always be in the box in the middle.

Now comes the crunch. Some STEFMs have the chips mounted directly to the motherboard instead of being in a socket. More components are needed and this isn't some dastardly manner of extracting more money from you. The extras are usually supplied at cost price plus postage and, in most cases, despatched the same day.

The Video Shifter chip has to be removed from its position on the board and a socket soldered in its place. This is a delicate operation, so if you're not confident of your ability with a soldering iron, get a professional to do it for you. The surface mounted MMU chip is easier to overcome provided it's a square chip. A small minority of machines had a rectangular MMU chip and these are very awkward to upgrade. In fact, if you have one like this, contact the supplier rather than attempting it yourself unless you really are a professional or a serious hobbyist! The adapter board in the picture simply fits over the existing chip.



A new socket for the Video Shifter (left) and an adapter for a surface-mounted MMU chip.



SIPPS AND SIMMS

Adding memory to the STE is very simple as we've already shown, but a small number of machines are non-standard. Some STEs have SIPP memory instead of the usual SIMMs. Referring to the picture on the left, you can see that the SIPP has a row of pins along the bottom that are soldered to the motherboard. Contacting your supplier will bring you a pair of SIPP-to-SIMM converters as shown. These are soldered into place and you can add one megabyte SIMMs later if you wish.

SIPPs, SIMMs and converters.

HOW MUCH MEMORY?

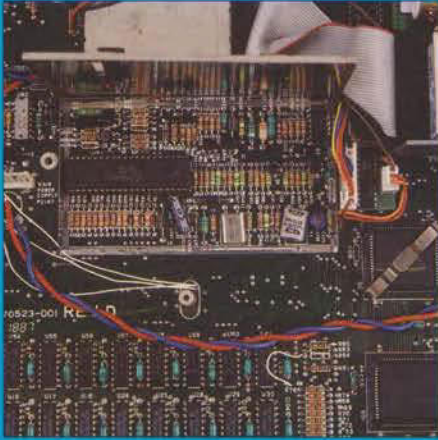
A standard upgrade consists of enough memory to increase the RAM of your computer to one megabyte. You'll find that you actually get nearly three times as much usable memory as before, due to the operating system taking the same space – about 350 Kbytes free in a 520 and 850 Kbytes after upgrading.

Both the STE and the STEFM upgrades allow further memory to be added at a later date. What you need to do is buy some one megabyte SIMMs and replace the quarter-megabyte SIMMs in the slots. This can only be done in pairs, so you can go to either two or four megabytes in an STE or, because of the way the memory is addressed, 2.5 or four megabytes in the STEFM. The STEFM in the Step-by-Step guide was originally upgraded using the old method of soldering 16 chips and 16 capacitors to the motherboard, and the small white wire connected to the end of the row of memory chips is to bypass this upgrade. So, the ST can be taken to 2.5 megabytes with an extra two, one megabyte SIMMs. To take the machine to four megabytes, another slight alteration is necessary.

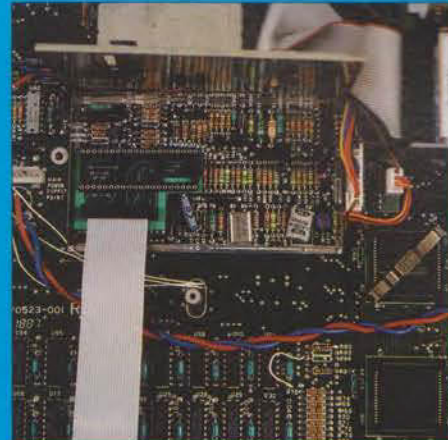
STEP BY STEP



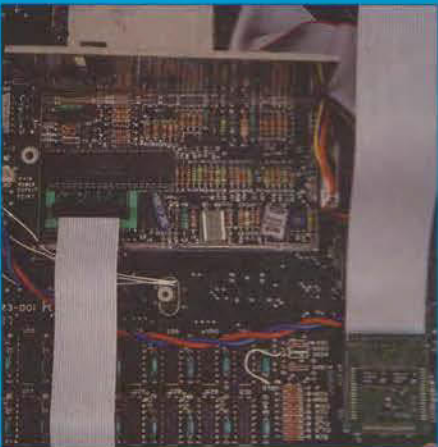
Just how do you upgrade an STFM? Using the Marpet XtraRAM Deluxe board, it's simple. Here's how, Step By Step...



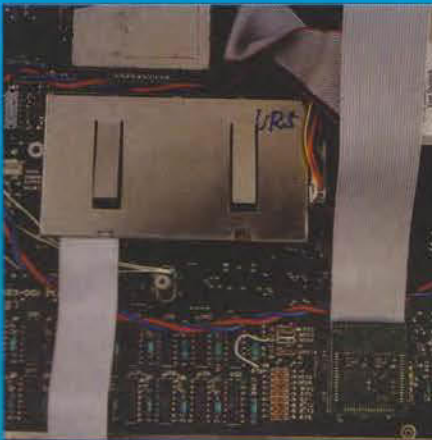
1 Once the case and screen have been removed, open the box in the middle of the motherboard to reveal the Video Shifter chip. Taking the proper anti-static precautions, carefully remove the chip by working it loose with a small flat-bladed screwdriver.



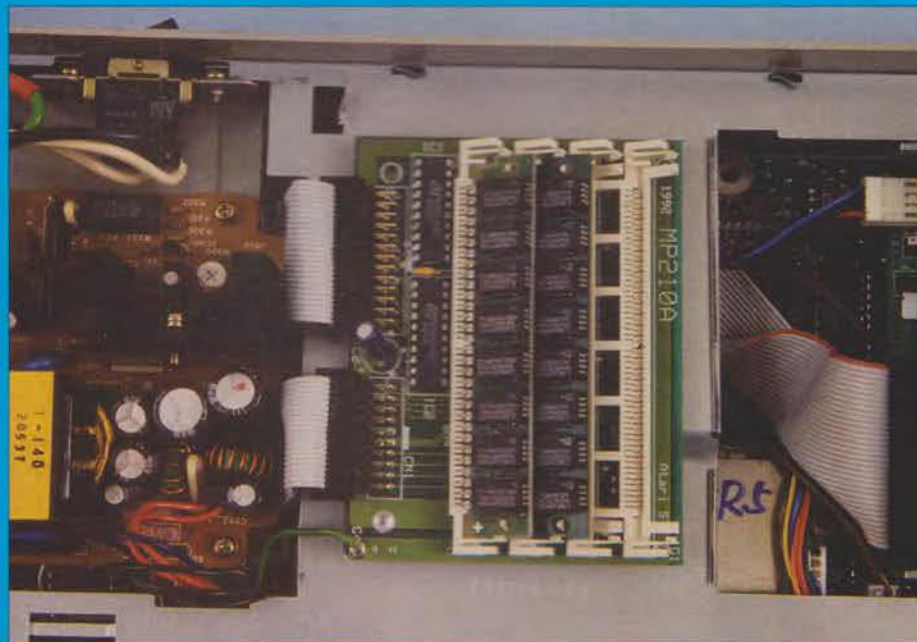
2 Push the adapter lead into the vacant socket making sure that the lead is the right way round. Remove the pin that holds the case closed on the side so that the lead will come out of the box. It's a good idea to round the top of the lip so that it doesn't rub through.



3 Replace the Video Shifter chip and locate the MMU. In this case, it is the front one of the two square chips. The board presses on to the top of the socket and a fair amount of pressure is required to ensure a secure connection.



4 Having rounded the edge of the box where the cable is going to go through, close and seal the lid of the Shifter box. Now replace the screen and run the cables through to the top and out to the side of the power supply. This is probably the most awkward stage of the whole procedure and may take a couple of attempts to get right!



5 Connect the cables to the memory board. This one has two quarter-megabyte SIMMs on board. Use some hot-melt glue or similar to hold the board in place. Plug the keyboard, monitor and power lead in and test the upgrade. Make sure you don't touch anything! When you are satisfied, reassemble the computer (unplug it first!). You now have a one megabyte STFM.



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Fax: 081-666 0405

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DA'S

VEKTOR

DA's Vector

"Stunning colour and special effects – quite simply the best vector graphics creation tool on the ST." Atari ST Review. This is what enthusiastic journalists have to say about DA's Vector. We haven't space to mention the 3D text effects, 3D bar charts and pie charts, animation, and what we call "Vector Morphing" £149.00 inc V.A.T

The Dream Team

During the 1992 Olympics, the USA used the best basketball players in the world to form the ultimate team. Which soon acquired the title of the "Dream Team". Now CGS-ComputerBild bring you the best in Desktop publishing, and Image retouching at the unbeatable price of £299.00 inc V.A.T. This years 1993 "Dream Team".

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ALIVE AND CIXING

How would you like to join CIX, the UK's foremost bulletin board and conferencing system, for free? André Willey explains how...

So you've just bought a nice fast modem, plugged it into your computer and called some of the hundreds of local bulletin boards scattered around the country. You've left messages for other users, read their replies and exchanged favourite demos and utility programs. What next?

Time to take the next step and register for one of the much larger and more versatile commercial services. Here in the UK, Compulink Information eXchange (CIX) is probably the largest public-access conferencing system available, boasting a current membership in excess of 8,000 users and handling nearly 100 telephone lines.

Not only can you discuss matters of a technical or computer-related nature, but there are separate conferences devoted to just about every walk of life you could imagine – from religion and politics to martial arts and paintball gaming; from film and television to animal welfare and green issues. There are currently close to 3,000 conferences available, with over half of those open for anyone to join at will.

WHAT'S IN IT FOR ME?

The Atari enthusiast is well served, with over 20 conferences devoted to your favourite machines. The level of activity varies tremendously; the main "atari.st" conference handles the bulk of traffic – it carried over 1,400 messages during April, for example. There are also specialist conferences dealing with other aspects of the ST, and even some covering other machines such as the Lynx and the Portfolio.

We've even got our very own conference, called "streview", where you can chatter to the editors and journalists of your favourite ST publica-

tion, or just send us a message saying how great you think the magazine is!

CIX also stores an immense number of files; the file area in *atari.st* alone accounts for more than 600 utilities, games, demos and other applications. Plus, if you want to send a particular file to one user only you can transfer it directly from your computer at home into his or her personal CIX mailbox in complete privacy.

LOGGING ON

When you first log on to CIX you'll see a list of conferences and topics to which you have been joined automatically. If you press the Return key now, you will move to the first of these topics, and each time you press Return again, a new message will be displayed.

The first topic is called *learn/tutorial*, and the messages in that topic will teach you how to navigate your way around CIX. Once you've got the hang of things, you'll probably decide to resign from that topic as there is also on-line help available for every part of the system.

The other conference to which you will initially be joined is called *cix*. This is where you can report any problems and ask for assistance. However, the traffic in there can sometimes be quite busy, and many first-time users decide to opt out of that conference for the time being, using the command "resign cix", but this won't stop your membership to CIX itself! To view a list of all the conferences available, use the command "show all" – but be warned, it is rather extensive!

WHERE'S ST REVIEW?

Now's the time to start using CIX in earnest. The first conference you'll want to join is *streview*. CIX uses sim-

```

Welcome to - The Compulink Information eXchange

      XXXXX  XXXXX  XX  XX
      XXXXXX  XX  XX  XX
      XX  XX  XX  XX  XX
      XX  XX  XX  XX  XX
      XXXXXX  XX  XX  XX
      XXXXX  XXXXX  XX  XX

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081 398-1255 Courier HST DS+ V32bis, HST-14.4K, V42bis MNP 5 - 32 lines
081 398-1244 Courier HST DS+ V32bis, HST-14.4K, V42bis MNP 5 - 26 lines
081 398-9787 Hayes Ultras V32bis, Hayes 9600, V42bis MNP 5 - 4 lines
081 399-5252 Tricom Modems with V21 V22 V23 V22bis MNP 5 - 14 lines
081 399-3468 Dataflex V24 ISDN Terminal Adapter with V110 - 2 lines
2342 1330 0310 is our NUR for PSS, or X25 access - 10 chans
cix.compulink.co.uk is our address for Telnetting into CIX - 10 users

If you type "qix" instead of "cix", this screen will not be displayed
CIX Version 2.2 29/04/93
Copyright (c) CoSy Conferencing System, University of Guelph, 1984
Portions copyright (c) Compulink Information eXchange Ltd, 1985-1993
Nickname? (Enter 'new' for new user) NEW
L/F-Off Cap-Off Sys-men:1665056 Cap-buff:0 19200 Full TIme: 08:00:12
  
```

The main CIX login banner. Next time you login, use 'qix' instead of 'cix' to suppress this screenful of text.

ple English commands wherever possible, so all you need to type is "join streview".

There are three topics of discussion: *viewpoint*, *files* and *general*. *Viewpoint* should be used to send us letters for possible publication while *general* is for casual chatter about the magazine. For now, go to the *general* topic using the command "switch general" or "join streview/general". If you press

Return you'll see some messages posted by other readers, but as there might be quite a few of these you might like to type "skip to last" to get to the end. If you'd like to read just the recent messages, use a command like "skip to back 2", which will start reading messages from two days ago.

If you want to comment on anything you read, instead of pressing Return to see the next message, type

```

Main:edit profile
Editing PROFILE text.
8 lines existing in file
Available commands are:
e(x)it (a)ppend (c)lear (d)elete (h)elp (l)ist (q)uit (s)ubstitute
Command-> L
1 ->news
2 ->mail status
3 ->quit
4 ->show new
5 ->option down x q
6 ->option up x q
7 ->option edit v quit
8 ->option autorecent on quit
Command-> DS,6
Deletion Complete
Command-> A
Begin entering your text. When you are finished
go to a new line type a period and press the enter key
Input->option down z, up z, q
Input->.
Command-> X
8 line(s)
Edit complete.
L/F-Off Cap-Off Sys-men:1665056 Cap-buff:0 19200 Full TIme: 08:00:47
  
```

Editing your on-line profile to tell CIX you wish to use Zmodem for file transfers, instead of the archaic Xmodem.

ON-LINE CHARGES

Minimum monthly charge: £7.35.
Off-peak rate: £2.82 per hour
Peak rates: £4.23 per hour.
Peak time is between 8 am and 5 pm, Monday to Friday.


```

Read:
=====
atari.st/main #5265, from ilaskey, 143 chrs, Apr 29 16:55 93
There are comments to this message.
=====
Silica (AKA Atari Helpline) today told me they expect copies of
MultitOS & SpeedoDOS *next week*. They had no prices though.

Iain

Read:comment
Comment to message number 5265. Enter message. End with '<CR>'
>That's great news. Does anyone have any idea of the price? For example,
>will early Falcon owners get MultitOS for free, or will they have to pay?
>
>I'm also looking forward to trying the finished version on my TT.
>
>Andre
>
Add/action:add
Adding message...Message 5314 added.
Read:
=====
L/t-off |Cap-off |Sys-nem:1665056 |Cap-buff:0 | 19200 Full |Tmr: 00:02:27

```

Adding a comment to a message in the atari.st conference. To finish your response, type a single full stop on a line of its own.

"comment". This will put you into CIX's *text gobble*, where you can type your response. When you've finished the message, put a single full stop on a new line and press Return to indicate you've finished. If you're happy with the message as written, you can now tell CIX to "add" it to the conference for everyone else to read. If not, you can either "quit" or "edit" the message using CIX's on-line text editor. Type "help" inside the editor for assistance if you have trouble.

To post a completely new message of your own, use the "say" command instead of "comment". The rest of the process is exactly the same as before – in fact, whenever you have to type in some text, CIX will use the *text gobble*.

Now might be a good time to explore our *files* topic. Again, use the command "switch files" or "join streview/files". To see a list of all the files that are available, type "flist".

TRANSFERRING FILES

CIX doesn't yet know your choice of transfer, so use the command "option down z, up z, q" to tell it to use Zmodem.

Unless you want to type this command every session, it's a good idea to change your online 'profile' to make these options permanent. To do this, type "edit profile". Briefly, the "L" command will list your current settings, "D5" or "D6" will delete lines 5 or 6, and "A" will put you into the text gobble to add more lines. For now, just delete the lines which set uploads and down-

loads to "x", and add the zmodem line mentioned above. Type "X" to save the file and exit, or "Q" to quit the editor if you get into a mess.

Downloading a file is simplicity itself – just type "fdl" and CIX will send the file directly to your ST's disk drive. For example, to download the file WELCOME.TXT you would type "fdl welcome.txt".

When you've had a good look around on-line, the command "bye" will end your session, and CIX will tell you how long you've been connected before dropping the line.

OFFLINE READING

On-line conferencing, especially when using a large commercial service like CIX, can work out rather expensive if you get carried away. The biggest time-waster of all is not CIX, nor the speed of your computer or modem, but you yourself! You may only read 30 kilobytes of text during a session, and type a few short messages back – but your reading and typing rates are unlikely to come anywhere near the computer's potential speed. If they did, your whole on-line session would take just 30 seconds instead of 30 minutes!

The simple answer is to store all your unread CIX messages in one file, quickly download it and peruse through them later, at your leisure when you're not paying BT for the privilege! If you want to make some replies, create them off-line in a text editor, and send them to CIX *en masse* when you next go on-line. This process

Dterm Transfer Protocols Information			
Mode:	Zmodem Batch Receive		
Filename	cpx.lzh	Blocks	N/A
Size	78734		
Est Time	00:01:14		
Transfer Progress			
Bytes	19456	Block	N/A
Elapsed	00:00:18	24%	1063 CPS
Status	Full Streaming		
Messages	BINARY Mode		

Downloading a file from the atari.st/listings topic. Zmodem provides running statistics on the transfer, and even estimates the total time required.

is known as off-line reading, and most computers have programs available to ease the task. For the ST, the off-line reader (OLR) is called *Cixread* and we'll be covering this in much more detail next issue, but if you'd like to have a go with it in the meantime, why not join the atari.st.olar conference on CIX? In the *programs* topic you will find everything you need to get you started. Download the software using the command "fdl atari.olar.tos".

The downloaded file, ATARIOLR.TOS,

is a self-extracting archive, meaning that all you need do is run it from your disk drive and it will create all the necessary files and folders for you. There is a *readme* file provided which explains in general terms how to use the system, and more detailed documentation is available. For now, just run CIX-COMM.PRGM and it will control your on-line sessions and take you in and out of CIX and Cixread as required.

That's all for this month, so get CIXing!

REGISTERING WITH CIX – FREE!

AS AN ST REVIEW READER, YOU CAN REGISTER WITH CIX FOR FREE UNTIL THE END OF JULY, SAVING £25 PLUS VAT!

Using *DTerm* on the cover disk, click on the 'Set Flow' button so the text shows as 'Flow' rather than 'Normal'. Also, in the 'Set Protocols' section select 'Zmodem' for uploads and downloads, and click on the 'Auto Z' button.

Once this is completed, save your configuration for later use and go to the Terminal Mode. Just type "AT D" followed by the CIX phone number AT D 081 390 1255. The modem should now dial CIX and establish a connection. The system will prompt you to type "cix" to login, and then ask for your nickname. All users have their own unique on-line name, which can either be a short form of their own name, or a humorous nickname. Since you don't yet have a nickname, type "new" and CIX will ask for your details, and for a unique password which will prevent anyone else from hacking into your

account. The registration process will take about ten minutes, and CIX will explain each step clearly as you go through. You'll need to have your credit card details available, since CIX must know to whom it should charge the account before it allows you access to the system. If you don't have a credit card yourself, ask someone who does if you can pay them to use their card – but don't forget that the charges will appear on their monthly statement...

After the system has accepted your name, address and payment details, you will be asked if you wish to enter a special code. Answer "yes", and type in our free code word **streview**. You'll be given one final chance to read CIX's terms and conditions, and if you're completely happy with the details you've entered, you will now become a registered user of CIX.

ATARI-RELATED CONFERENCES ON CIX

atari.st	Conference for the Atari ST computer
atari.st.prog	Atari ST and TT programming
atari.st.olar	Offline cix reader/replier for the ST
atari.st.desk	Alternative Atari ST Desktops and similar utilities
atari.st.cyber	Antic CYBER software users look here
stgames	Atari ST games Software
mint	Discussion of the MINT extension for the Atari ST
lynx	Atari Lynx – the portable games console.
portfolio	Atari portfolio users
st.mags	Atari online magazines Z-Net and ST Report
streview	Discussion about, and letters to, ST Review magazine

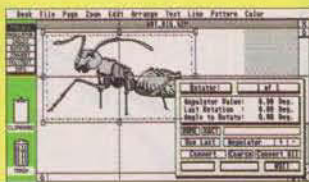
NEXT MONTH

EASY
TOOLS 2

Next month's cover disk contains the perfect partner to *Easy Draw 2* – *Easy Tools 2*! This full commercial program expands the already formidable muscle of *Easy Draw 2* and lets you truly harness the power of your imagination.

ONLY THE
BEST IN
ST REVIEW!

Next month's
incomparable
editorial pages will
bring you...



AUTO TRACERS

What are they? How do they work? We reveal how a normal picture can be converted into a vector image and compare the four main ST programs with this feature.

COMMS

Not satisfied with just giving you free membership to CIX, next month we'll also give you an off-line reader on the cover disk to save you money on your telephone bill! What is an off-line reader? Find out the easy way – read the next issue of *ST Review*!

NETWORKING

Can several Atari computers be connected together and share files, networking like the big boys? Find out in the next issue...

AND...

...full reviews of the latest products and games, a photographic step-by-step to save you money on repairs, and all the regulars.

**ST REVIEW GIVES YOU THE BEST VALUE OF ANY
ST MAGAZINE – THE BEST EDITORIAL AND THE BEST
COVERAGE FOR ANYONE WITH AN ST!
ON SALE 24 JUNE – ORDER IT NOW!**

TECH TALK

*Is there a
software
compatibility
issue with
the Falcon?*



With the arrival of the Falcon, the question of software compatibility is at the forefront again. In theory, there should be no problems at all. The Falcon is running TOS, the same operating system as the ST and TT. It even goes further and emulates the ST sound chip and STE DMA sound system. Reality is slightly different...

When my new Falcon arrived, I was prepared for the worst. Going by the rumours, I thought that most programs will simply not run. I expected the Falcon to be a nice toy to play with but not much more until updates for my programs were released. It was a pleasant surprise to discover that all but a small number of programs worked first time. Non-standard screen handling is responsible for most of the incompatibilities and some programs will not work with graphics cards or other hardware modifications like Overscan.

Some programs assume that the screen resolution is 640 x 400 or 640 x 200 pixels. When an unexpected resolution is found, as is the case with the Falcon, they display various symptoms ranging from a messy display to a row of bombs.

Programs that use the standard GEM routines to display menus and dialogue boxes may be slower but at least they work on any system including MultiTOS.

Programmers have to consider the options. You can write your own super-fast screen driver which will perform superbly – as long as the program is run on a bog-standard ST. Alternatively you can use GEM, which will be slower, but guarantees compatibility with all existing and future products.

There are many good reasons to go for GEM instead of a custom menu and window system. First, the interface will be immediately familiar to users. The program will require a shorter manual and the user won't have to battle with unfamiliar screen objects and so will be able to start using the program right away.

This is the adopted manner on the Mac which has earned a user-friendly reputation.

A classic example of a neglected GEM facility is the clipboard. This was designed to enable applications to interchange data via disk files, a highly desirable function. Unfortunately, this has been totally ignored by most programmers, and is often incorrectly implemented so rendering it useless.

MultiTOS is on the horizon, accelerators such as NVDI are established, display enhancements like Overscan are now relatively cheap and the Falcon has arrived – it's time for the ST's software range to be standardised. Such an action would be the sign of a mature system and is a necessity if we want the ST range to maintain its relative success.

Ofir Gal is one of the UK's foremost ST experts, specialising in technical areas such as programming and music. He is the author of various ST programs, both commercial and shareware, and keeps typical programmer hours which means that he can never be contacted before three in the afternoon!

We've scoured the ST world to bring you products you're likely to need at prices that won't break the bank...

WHAT'S

INCREASE YOUR MEMORY!

STE SIMMS

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TO 4 MEGS!



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CUSTOMER CARE

At *ST Review*, every care is taken to bring you the highest quality products at the lowest prices. We don't just offer you anything we can lay our hands on - the products are carefully selected and we ensure that they are practical, handy and actually enhance your computer. Everything we sell is fully supported - help is just a 'phone call away.

The *ST Review* campaign to encourage every owner of a 520 ST computer to upgrade to one megabyte continues. To this end, we still offer the cheapest memory upgrades available anywhere!

Priced at £9.99 for the STE and £34.99 for the ST/F/M range, nearly every owner of one of these machines can increase their memory without having to pay another penny!

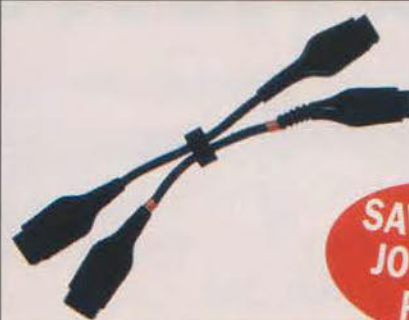
And no soldering, although there are a small number of machines with soldered-in chips that require extra work and this may involve a small extra charge for additional parts and some soldering.

MOUSE/JOYSTICK EXTENSIONS

The mouse and joystick ports on the ST could well have been designed by the same person who invented the Reliant Robin! Continuous swapping of joysticks and mice eventually damages the ports. Cost of repair? You don't want to find out! Save yourself the hassle - buy an

extension lead for just £3.99!

Choose a single lead for £3.99 or a pair for just £5.99. Prolong the life of your ST with this essential little extra.



SAVE YOUR
JOYSTICK
PORT

KEEPING TRACK OF TIME

ATARI'S
ESSENTIAL BUY

UPDATE YOUR ST SYSTEM CLOCK AUTOMATICALLY!

The problem with the internal clock in the ST is that it forgets the time when you switch off!

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The mouse that comes with the ST is not the best in the world, to say the least. Why not upgrade to the ST Review mouse?

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SAVE £2 ON THE ULTIMATE VIRUS KILLER!

Another ST Review exclusive! The Ultimate Virus Killer is probably the best virus utility available on the ST and the latest version (5.7) would normally cost £9.99. You can buy it today from us for just £7.99, saving a massive 20%.

UVK recognises all known viruses and does a complete system check every time you run it so don't delay, order it before you lose any valuable data!

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The first in a brand new series aimed at giving you an insight into the major UK companies. What goes into producing ST software? Tony Kaye goes behind the scenes at HiSoft to find out...

THROUGH



"The Old Schoolhouse" in Greenfield, Beds.

Since 1980, HiSoft have been renowned for producing high-quality serious software. You're probably aware of HiSoft BASIC and Lattice 'C' along with many other languages and utilities. It may surprise you to know that the first products were pre-Spectrum but that it was the Spectrum that produced enough money for the company to function full-time and exist in the format we

know today. And you thought that Uncle Clive was good for nothing!

Company founder, David Link, has never been one to take the easy option. As a teacher in Highgate School, a bright young student named David Nutkins wrote a Pascal compiler for the Z80 micro-processor. This was ported to various Z80 machines such as the Nascom – remember them? Working from

home, the two Davids produced Pascal followed by Devpac, but it wasn't until the success of the Spectrum that a full time business with its own premises became viable.

In fact, at one point, Link was living in Geneva and Nutkins had to visit him there to discuss programming progress. During the halcyon days of the Speccy, the computer

industry was still very small. Products had typewritten manuals and the nature of the development work meant that a few minutes of Parallel Input/Output transfer required the Speccy to be kept in a fridge for several hours beforehand!

The current home of HiSoft (the name of which is taken from Highgate School Software, not High Quality Software, as most people believe) is an old schoolhouse in Greenfield, Bedfordshire. Perhaps this is an apt home for an ex-school-teacher!

With the Z80 market dying in 1985 (although the Spectrum continued to be produced until 1991) a choice had to be made between the



THE PEOPLE

The often faceless world of programming has its characters. Someone has to create the product that is eventually sold to the public...

DAVID LINK

David is the founder of HiSoft. In the early days, he moved to Geneva and eventually came back to set up the company as we know it today with various changes along the way. When the firm moved to the Old Schoolhouse, David was involved in an unsuccessful partnership that split after two years leaving Link in total control of HiSoft.

David Link, head of operations at HiSoft.



DAVID NUTKINS

David wrote the original Pascal program that started HiSoft in motion. He ported the code to many different machines including CP/M, MSX, Amstrad CPC and, of course, the Spectrum.

David was responsible for assisting in the writing of HiSoft BASIC and writing WERC5 and Modula 2 Compiler. Porting the C Interpreter manual from English to French is his one and only attempt at translation. TruePaint was originally written in the summer of 1992 by John Gymer



(the writer of the Concerto sequencer for the ST – Ed) on the "Sparrow", the pre-release version of the Falcon. John left the company and David Nutkins has had the job of tidying the program up ready for release!

ALEX KIERNAN

Alex is a university graduate with a degree in electronics. His computer language knowledge is completely self-taught, having learnt 6502 Assembly Language on a Commodore Pet. The 6502 was the central nervous system

David Nutkins beaver-ing away at another revision of True Paint.

in the Atari 400/800 series as well as the BBC and others.

A strong knowledge of 68000 Assembler and C means that Alex is currently responsible for updating all the language packages to take advantage of the Falcon's advanced features. Alex is also responsible for programming the file formats and conversion facilities within TruePaint. These had to be written in 68000 Assembler to obtain the maximum speed possible. Such programming makes TruePaint one of the most versatile conversion utilities available on any machine as well as being a very impressive paint package!

Alex is working on file formats for TruePaint and also updating existing packages to take advantage of the Falcon's capabilities.



THE KEYHOLE

THE HISOFT RANGE

There is a full range of products available from HiSoft from languages to a flight simulator...

FOR THE PROGRAMMER

DevpacST 3
Power BASIC
HiSoft BASIC 2
Lattice C 5.5 ST/TT
HighSpeed Pascal ST/TT
FTL Modula-2
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SpeedoGDOS
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Atari Works



Truelmage, a sneak preview!

Motorola 68000 and Intel PC chips. The first ST was not yet available so choosing the former was certainly risky. The PC had a mass market, but the disadvantage of Microsoft and a couple of other well-established BASIC interpreters available. HiSoft decided that the potential of the 68000 was well worth taking a chance with.

The risk paid off as the ST market grew and computers started selling in large numbers. The first 16-bit product was a compiler based on Sinclair QL BASIC, the competition being *Fast BASIC*, originally a ROM cartridge based product, and *GFA BASIC*. The only version of the language now fully-supported is that of HiSoft.

In 1991 HiSoft took the decision to expand the range, a commercial

judgment with the intention of making the most of the existent ST/Amiga market. David took on the Kuma range of software including *K-Data*, *K-Spread*, *K-Roget* amongst others. HiSoft also took on the agency in the UK for Oxix, the company behind

Superbase, and are currently developing *Superbase Professional IV*.

There are many new products in the pipeline for the Falcon and the whole ST range. One such program is an English version of *Papyrus*, a fully featured word processor. HiSoft are also the official UK distributors for *SpeedoGDOS* and *MultiTOS*, which will sell for £34.95 or less depending on exchange rates and licensing fees/royalties. Both products will, of course, work with the ST range as well as the Falcon.

TWO-BIT SYSTEMS

The most recent addition to the HiSoft family is AVR or Two Bit Systems. Tony Racine and Dave Woodhouse are the people behind *Videomaster* and *Stereo Master*, a couple of the products marketed by Microdeal. Dave Woodhouse is the hardware genius while Tony concentrates on running the AVR side of the company, writing manuals and so on. Originally based down the road in Luton and founded in 1986, their first product was a sound sampler for the Atari 400/800 8-bit computers called *Replay*.

DAVE WOODHOUSE AND TONY RACINE

The people behind the AVR sound and video sampling packages, now under the HiSoft wing. Dave is the hardware expert while Tony is responsible for the running of the AVR part of the company, writing manuals and anything else that needs doing!



Dave Woodhouse busy testing another batch of Replay 16 cartridges.

NOT ONLY, BUT ALSO...

A company doesn't run on programmers and management alone. Various others work behind the scenes...

Julie Saville is office manager and responsible for the day-to-day running of the office.

Marlynn Brawnston handles the accounts while Sallie Nutkins, David's wife, is support co-ordinator and helps with customer problems. Glynis Hughes is Despatch Supervisor and has the honour of overseeing the packaging and distribution of the range. Finally,

Richard Kiernan, brother of Alex, is at the end of the telephone as Technical Support.

A busy office. Glynis (right) and Marlynn keep the ship afloat!



THE RIGHT NUMBER?

David Link drives around in a Diesel Citroen with the number plate "H15 OFT". This looks very impressive and, at first sight you may think that the company is spending vast amounts on useless items. This is not the case. When the H registration plates became available, it was time for a new car and David had worked out where to go to get this particular plate. Before chasing around the country to look for it, the new ruling of releasing plates for sale was introduced. So, for the princely sum of just £200, the registration was bought.

There is, however, one small drawback – a second set of number plates will be needed when it comes to MOT time. The new regulations fail a car if the numbers and letters are not correctly spaced!



It'll never pass an MOT, but it looks good!

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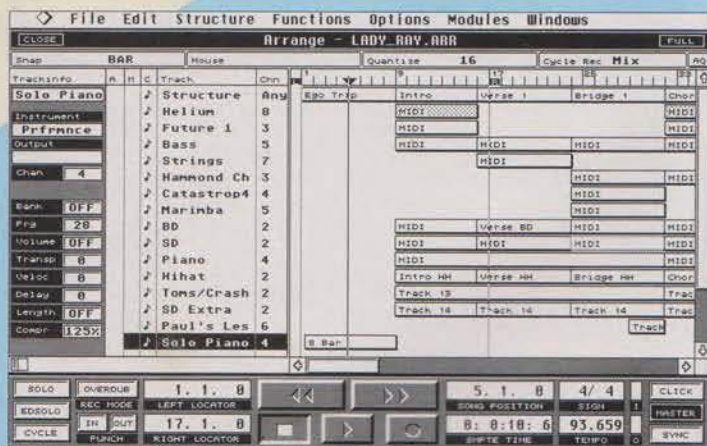
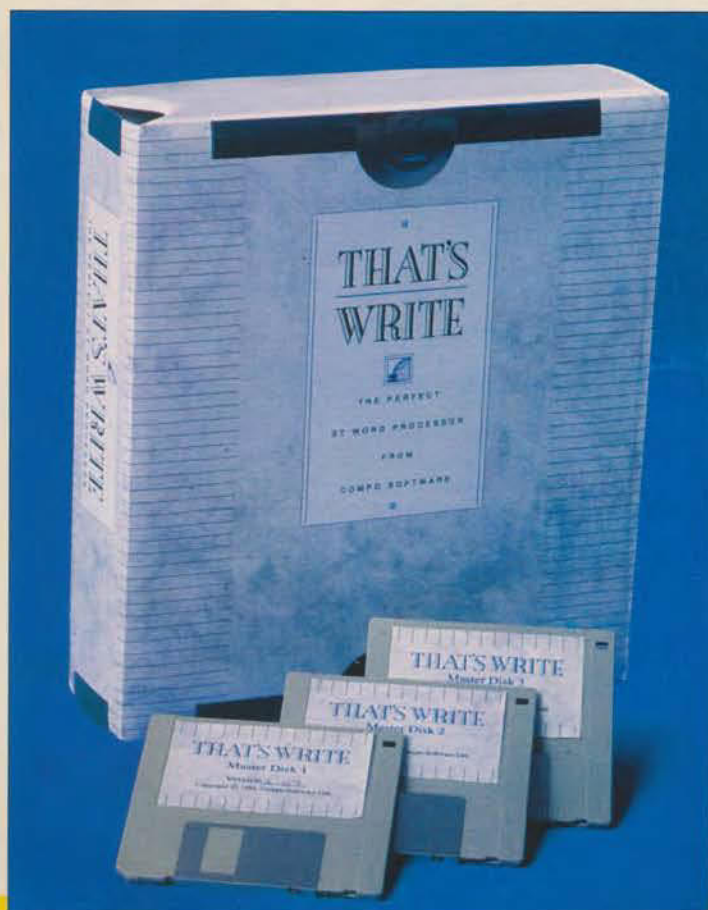
CITIZEN

COMPETITION

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You want the editor

OF THE CENTURY!



THE COMPETITION

What do you have to do to win? Look at the three simple questions below, work out the answers and phone them in – it's that easy! But be quick – the competition closes on the 30th June...

1. What processor does our Falcon use?

Answer 1: 68000.

Answer 2: 68020.

Answer 3: 68030.

2. How much RAM does our competition prize have?

Answer 1: 1 megabyte.

Answer 2: 4 megabytes.

Answer 3: 14 megabytes.

3. What size hard drive is built into our Falcon?

Answer 1: 65 megabytes.

Answer 2: 40 megabytes.

Answer 3: 105 megabytes.



Now simply dial...

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o wear a pink tutu? – YOU ASK HIM!!

Ever wondered
what makes a
software writer
create a certain
program?

Jeremy Hughes
gives ST Review a
unique insight...

HUGHES WHO?

The idea that all programmers are computer freaks is a grave misconception. Some of the finest programs have come into being through sheer necessity on the part of a person who may or may not have been a programmer previously. In fact, many software writers have simply bought a computer with the intention of using it for a specific purpose and then programmed out of frustration.

Jeremy Hughes, author of *Fontkit Plus* and *Imagecopy*, is a perfect example.

"I didn't have a computer before the ST," comments Jeremy. "I was in the final stages of writing my thesis in 1986 and it seemed like a good idea to type it into a word processor rather than use a typewriter."

"At the time I looked at the Amstrad PCW which a lot of people were using, but someone suggested getting an ST. What was attractive about the ST was the monitor when compared with the Amstrad - the ST monitor is far more pleasant on the eyes."

Seven years ago, there were very few word processors available. "I used a program called *Final Word* by Mark Of The Unicorn who gave up supporting the program quite some time ago (they currently manufacture music software and hardware for the Mac - Ed). It's a totally non-GEM program and had various advantages over other GEM programs of the time including a footnote facility and the ability to use proportional fonts. I switched to *That's Write* after I



bought a Deskjet as *Final Word* didn't have the necessary printer driver."

PROGRAMMING

How did this lead to programming? "I did some programming almost from the beginning, although that wasn't my original intention, because I found that I needed to be able to get Hebrew into my thesis. I got a C Compiler from GST to teach myself C after getting frustrated with *ST BASIC* and soon afterwards bought an early version of *Lattice C*. I started writing font utilities to get Hebrew into my texts."

Did you start out programming in C? "I was initially using a crude

BASIC downloading program that transferred 9-bit Hebrew fonts to a Juki 5510 printer", Jeremy answers.

"There is a Hebrew font in the *ST* character set and as *Final Word* allowed me to access any character, I mapped them onto the downloaded font using a facility in *Final Word* to switch fonts. Being a draft font, the quality was poor so I bought a RAM chip for the Juki which allowed me to download Near Letter Quality fonts."

"At that point I decided that I really wanted a font designing program because it's fairly easy to design a 9-pin draft font on paper but far more difficult where Near Letter Quality is concerned. This was *Fontedit*, the predecessor to *Fontkit*."

Was the intention to create a program with bells and whistles? "Initially it simply designed 9-pin downloadable fonts," remarks Jeremy, "because that's what I needed it to do at the time. From there I thought it would be nice to design Atari system fonts so that was added to it so that I could have Hebrew and Greek together in the system."

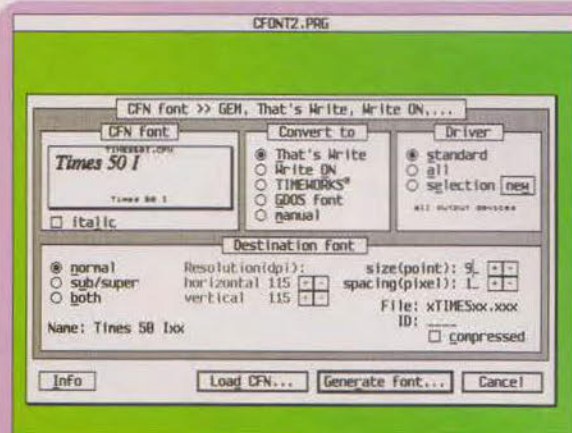
"The next step was 24-pin downloadable fonts within the PD version. *Fontswitch* was written to allow people to access different downloaded fonts and the next stage was *Fontkit Plus* which added the ability to edit GDOS fonts at a time when GDOS was just appearing."

"*Easy Draw* was one of the only programs to use GDOS but *Calligrapher* and *Timeworks Publisher* appeared in 1988 and it was lucky for me that *Fontkit* came out at the beginning of this period as a lot of people were interested in designing their own GDOS fonts."

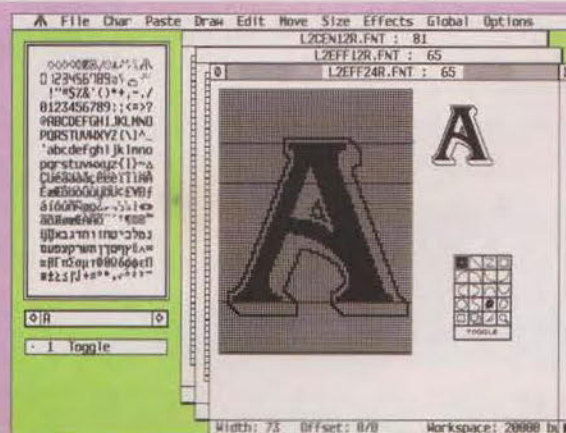
DEVELOPMENT

It's one thing to write a useful program, but something else entirely to get it to the public and to sell nearly 4,000 copies! How did this happen?

"I sent a copy of *Fontedit* to the ST Club and Paul Glover was very interested. *Fontkit* as a name was originally used when *Fontedit* was accompanied by various other



Jeremy
wrote the
main
code for
Compo's
CFont
program.



Fontkit Plus
4, the latest
incarnation.

programs such as *Fontswitch* and I thought 'I'll call the complete package *Fontkit*'.

"Then it started to confuse people so I came up with the name *Fontkit Plus* and during the six months or so that it was PD, about a dozen people sent in their £5 registration fee! Paul Glover thought that it could be a commercial program at a reasonable price and sold it as such - we're currently up to *Fontkit Plus 4*."

Has it changed much over the years? "I added a facility for editing and importing other types of fonts. Signum fonts was an early addition followed by Macintosh and Calamus fonts, all converted to GDOS format. Programs to do this existed on the PC such as *Typographica*, published by GST, but there were no programs that I was aware of at the time which did this on the ST."

"Other utilities have gone into *Fontkit* such as *Font Expander* which reads and writes compressed fonts. Digital Research developed an efficient compression technique, but this was never available on the ST as the version of GEM postdated that of the ST."

When did you first branch out from fonts? "Somewhere along the line between *Fontkit Plus 1* and *4*, I became interested in programming for its own sake. *Imagecopy* was the first major digression at the end of 1991. That came out of my experience of writing program manuals and finding that existing snapshot programs seemed to be rather difficult to use."

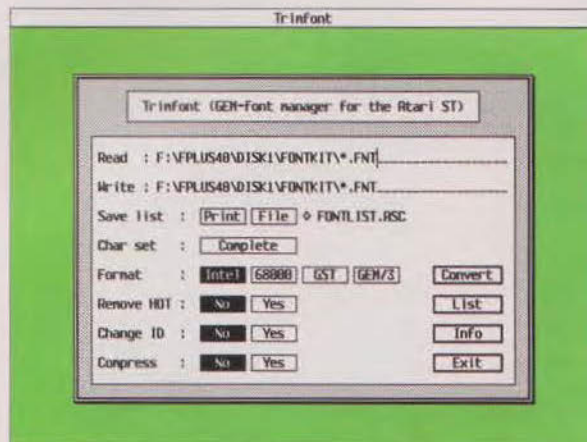
But how did a relatively simple image capture and conversion program lead to *Imagecopy 2*? "*Imagecopy 1* also allowed people to print pictures in mono on a range of printers", replied Jeremy, "with the 'colour' slot greyed out because I hadn't written it into the program yet! *Imagecopy Colour* came out at the end of 1992 with the ability to print in colour."

"The main additions in *Imagecopy 2* are the variety of image formats (reads 15 types and writes six) and the ability to print scalable 256-colour or true colour images at better quality than *Imagecopy Colour*. It prints to dot matrix, inkjets, laserjets... I would

WHICH COMPUTERS?

An ancient 520 ST with an unbelievably clean keyboard, 5M124 mono monitor and an 5F314 external floppy disk drive. Initially supplied in 1986 with the operating system on disk, it currently sports 4 MB of RAM and TOS 1.04, the latter added after the purchase of a 65 MB Third Coast Technology hard drive in 1989.

For software development, Jeremy uses a TT030 with 6 MB of RAM, 210 MB hard drive and a PTM144 greyscale monitor. He also owns an HP Deskjet 550C and an NEC 24-pin dot matrix but currently has a Citizen Swift 24E colour 24-pin printer on loan from the ST Club.



Trimfont lets you save disk space by compressing GDOS fonts.

have thought over 95% of printers that people use."

Any other programs? "*CFont* was a spin-off from *Fontkit* and contains the Calamus-to-GEM conversion code which was repackaged by Compo with a *That's Write*-style front end. I also did a version of *Fontkit* about two years ago that went into Atari's *Introduction To Programming Utilities*. The series included *Calligrapher Light*, *WERCOS* and various other useful programs for around £25."

Software is developed on a TT - does this cause any problems? "I don't think I've found any cases of programs that I've written running on the TT but not on the ST. I do test them on the ST as well but the problems tend to be the other way round."

"Also, I don't use a lot of system utilities such as screen accelerators because I like to know that a system crash is down to my program not somebody else's. I use a program-

ming shell that is no longer supported called *Craft* as an alternative to the desktop because I find it faster to type than to use the mouse!"

THE FUTURE

Jeremy was reticent about future products but assured me that there will definitely be an *Imagecopy 3*. Also, his circumstances have now changed.

"Up until October of last year I worked full-time for Oxford University. For some of that time I was teaching Biblical Hebrew at a time when there was no-one there on a permanent basis. I now spend half of my time as a programmer working directly for the ST Club. Prior to that I simply wrote programs in my spare time which I sold to them."

Have you seen a Falcon yet? "Yes, and one of *Imagecopy 2*'s features is that it supports all of the Falcon's video modes for copying and display-

More information concerning *Fontkit Plus*, *Imagecopy* and related programs can be obtained from the ST Club on 0602 410241.

INSIDE INFO

Jeremy went to St. John's College, Oxford University, in 1974 and read Classics (Greek and Latin) for two years at which point he changed to Hebrew. Finals in 1979 were in Hebrew and Akkadian, an ancient language used by Babylon and Assyria.

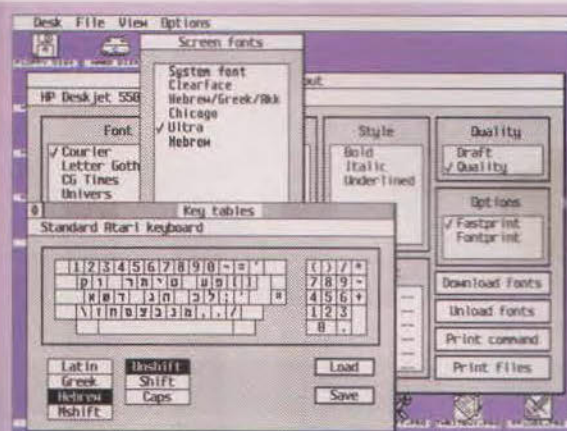
He continued as a graduate researching in Hebrew and wrote a thesis on the chronology of the Hebrew bible for his doctorate. This subsequently became a book entitled *Secrets of the Times - Myth and History in Biblical Chronology* in 1990. He has continued to teach Biblical Hebrew at Oxford University ever since.

ing but it doesn't yet take advantage of *MultiTOS* or the DSP chip."

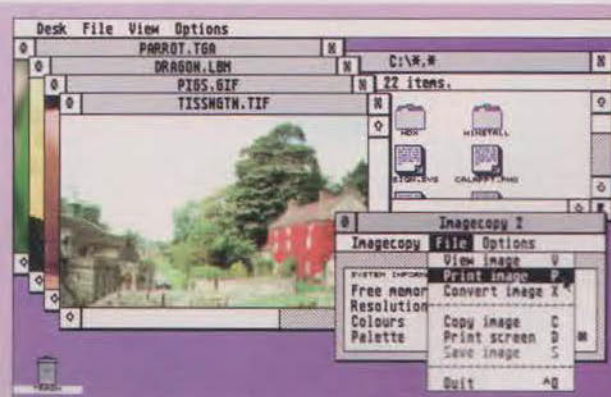
But what do you actually think of the machine? "I had one on loan for developing *Imagecopy* which I was using with an ST colour monitor. It's a nice machine and I'd certainly like to get one of my own at some point. Compared with an ST it's faster and the DSP chip has a lot of potential."

"*MultiTOS* should also be very useful in the future when people make sure that their programs run properly under it. The graphics are just superb when compared to an ST. The ability to have 640 by 400 pixels in true colour is useful compared to 320 by 200 pixels in 16 colours on an ST."

And what of the future? "At the moment I hope to go on writing programs and teaching Hebrew. I enjoy combining two different areas of work as it gives variety and for the next couple of years that's what I intend to do..."



Fontswitch allows you to move between different downloaded fonts



Imagecopy 2 can read up to 15 different image formats.



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The latest in Roland's Sound Canvas range also happens to be the cheapest. Brushes at the ready, Vic Lennard considers the light 'n shade...

PAINTING A NEW PICTURE

ATARIST
ESSENTIAL BUY

When Roland launched the original SC-55 Sound Canvas in 1991, the idea of "MIDI for the masses" was truly under-way. Good quality sounds – 317 of them and 9 drum kits to boot – and support for the newly-developed General MIDI System made the SC-55 a winner.

Roland's continued support for this range has resulted in nearly a dozen products and the price for the latest offering is now down to under £300.

So what do you get for such a paltry sum (in terms of MIDI sound modules, that is)? A small plastic box with various sockets and couple of knobs! Seriously, the SC-7 has stereo outputs, a pair of inputs for mixing sound from a tape recorder, CD-player or the like, and a single knob on the front panel for Master Volume. Adhering to General MIDI, it can play 16 instruments at the same time up to its total polyphony of 28 voices.

In terms of size, the SC-7 is small, measuring just 17 cm by 20 cm. It can even be positioned on its side courtesy of an extra pair of rubber feet.

With such a small size, certain compromises have to be made in terms of the socket types – the stereo outputs are a pair of phono while the two extra stereo inputs on the front and rear panels are both stereo 3.5mm jack sockets as is the headphones output. There's a lead included as standard to convert the phono outs to quarter inch jacks but there really should be a second lead to connect another sound module to one of the miniature inputs. The point of having two extra inputs is that the SC-7 effectively offers you a four into two mixer with the input on the rear also having a level control.

The 128 sounds are exactly what you'd expect from a Sound Canvas; clean, crisp, plenty of top end but a little thin. Only 128 sounds? Yes, but there's a good selection; acoustic and electric pianos, organs, guitars, basses, various string, brass and woodwind instruments, and a smattering of percussive tones.

Where General MIDI falls down is in the meagre number of drum

sounds – only 47 including a couple of bass drums and a single acoustic snare. Roland have increased the basic number of percussive instruments to 60 and have also included Power, Electronic, TR-808 and Brush kits along with an orchestral set. There's also a nice selection of reverb, chorus and delay effects built-in.

Editing is strictly limited on the SC-7. Special MIDI Control Change commands can be used to alter various drum parameters such as pitch, envelope and pan. System Exclusive is used for the reverb/chorus parameters amongst others, but no editing is allowed of the basic 128 sounds. This seems a little odd and is certainly a shortcoming. Additionally, as there is only a MIDI In socket you can't dump any edits you make to a sequencer. You can, of course, set up the information on a sequencer track but this is certainly more awkward.

VERDICT

Who would want an SC-7? Anyone interested in a set of high quality sounds but with few editing options

A pair of mini stereo sockets for headphones and the second input adorn the front panel along with the volume control.



A second input on the rear sits nicely with the pair of outputs and the MIDI In socket.

which probably means anyone who is interested in MIDI. Those of you with a serious set-up can use it as an auxiliary sound module – how often have you wished for an extra string or brass part? Or for a good acoustic piano and excellent nylon-strung guitar? At £273 (and probably cheaper in the shops), you've probably paid more for your sequencing software! If you're just starting out and want good sounds from an easy-to-use sound module that you can easily place out of harm's way, look no further than the SC-7. As it complies with General MIDI, you can instantly play back all of those lovely MIDI File songs that you've had your beadies on. Thoroughly recommended.

Excellent sound quality
Good effects
Acts as a basic mixer

PROS AND CONS

Only 128 sounds
Limited editing

"Satisfies a hobbyist's every needs and a most welcome addition to any serious set-up"

NAME: ROLAND SC-7
COMPANY: ROLAND (UK) LTD
CONTACT: 0252 816181
PRICE: £273
MIN MEMORY: N/A

EASE OF USE ★★★★★
DOCUMENTATION ★★★★★
EFFECTIVENESS ★★★★★
VALUE FOR MONEY ★★★★★

OVERALL **93%**

WHAT IS GENERAL MIDI?

A General MIDI (GM) module has to conform to a specific set of MIDI functions. For instance, all GM modules must be 16-part multi-timbral and play back key-based drums on MIDI channel 10 according to the GM Percussion Map. It has to have a minimum of 24 simultaneously available voices and 128 presets, each assigned to the MIDI Program Change number in the GM Sound Set. Finally, it must recognise certain MIDI Control Changes including Modulation, Volume, Pan, Expression and Sustain Pedal along with Channel Aftertouch and Pitch Bend.

Consequently, using any GM sound module should mean compatibility – no notes cutting out due to different polyphonies, no incorrectly selected sounds via MIDI Program Changes, no incoherent drums due to the wrong mapping, and so on.

MASTERBLASTER!

Does a General MIDI module costing less than £200 sound too good to be true? Vic Lennard finds out...

Creative Labs are unlikely to be a manufacturer you've heard of. The fact that most of their products are designed for the PC probably has something to do with this – the Sound Blaster card is one of the most popular sound cards for that computer. However, MIDI Blaster is a very different kettle of fish, having MIDI sockets on the rear for connection to any computer including the ST.

Typical of a General MIDI sound module, MIDI Blaster has a minimum of controls and sockets. The front has a power switch, mini headphone socket and volume control while the rear has a pair of phono ins/outs and three sockets for MIDI In, Thru and power from the external supply.

The package includes a PC sequencer and all necessary cables to link it to a PC which reduces the actual value of the MIDI Blaster to, perhaps, £150. To be honest, it certainly looks and feels cheap, especially when you plug the audio leads into the phono sockets and hear the internal board 'click'. I suppose this is partly the result of such a unit being manufactured by a computer company as opposed to a music one.

What does it sound like? Not bad for the price. Listening through the basic 128 sounds, most of the strings, brass and synths are good and the accordion is outstanding, not that this is an instrument you would want to use very often. The drumkits are also very usable. Unfortunately some of the more important sounds are poor including the pianos, guitars, saxes and woodwind instruments. The distorted guitar is dire with a dirty great 'clunk' at the start of the sound and a very sharp tone.

Many sounds suffer from noise at the start and unnaturally short envelopes. Notes played on the acoustic grand piano, for instance, die away before you really hear them and the bass instruments are bereft of any real bottom end. Instruments like the flute and piccolo are sorely lacking in top and so have little clari-



Apart from the power button, there's only a volume control and headphone socket at the front.

market that supports GM – well, nearly.

Various other aspects of MIDI Blaster also show up the low cost such as no reverb, chorus or other effects and no editing of sounds. Given the option, you'd be better off finding the extra seventy-odd pounds for an SC-7 but if your budget won't stretch past the £200 mark, you could do a lot worse than buying a MIDI Blaster.

ty, a situation that worsens when you hear a number of instruments mixed together.

On playing back the "Tubular Bells" MIDI File as reviewed over leaf, various instruments were heard to cut out on MIDI Blaster but play perfectly well on a Roland Sound Canvas. Why? Because the MIDI Blaster is only 20-note polyphonic – and yet the manufacturers claim that it conforms to General MIDI which requires a minimum of 24 voices. Consequently, a GM MIDI File may not play back correctly. Additionally, the manual lists

the basic 128 tones and a further 61 "GM Sound Variations" which is interesting as GM doesn't have Sound Variations! Creative Labs have mixed up GM with Roland's superset GS (see *Inside Info* for more information).

VERDICT

With a total of 235 tones and 92 percussion instruments, the MIDI Blaster certainly isn't short of sounds and while both the timbral and build quality are compromised it must be remembered that this is the cheapest multi-timbral sound module on the



The back is an equally simple affair with phono inputs/outputs and three sockets for MIDI In, Thru and power.



GM AND GS – THE DIFFERENCE

INSIDE INFO

While a General MIDI module has a standard 128 presets, Roland's GS format goes a little further by offering variations on the basic 128, or Capital, tones. For instance, Capital Tone #26 is a steel-string acoustic guitar while the two Variations for this are a 12-string guitar and mandolin; similar but different. Movement between the Capital and Variation tones is achieved by using a special MIDI message called Bank Select.

Most General MIDI song files are actually written to Roland's GS format and so use Bank Select messages to move to the correct sound. Should a sound module not have the necessary bank, the equivalent Capital tone will always be selected.

So the sound should be close to what the song programmer intended, if not exactly the same.

Good price
Lots of sounds

PROS AND CONS

Average sound quality
No effects or editing
Flimsy manufacture

"MIDI Blaster's rather average sound reflects the budget price"

NAME: MIDI BLASTER MB10

COMPANY: WESTPOINT
CREATIVE

CONTACT: 0743 248590

PRICE: £199

MIN MEMORY: N/A

EASE OF USE ★★★★★

DOCUMENTATION ★★★★★

EFFECTIVENESS ★★★★★

VALUE FOR MONEY ★★★★★

OVERALL **74%**

FIX THE MIX...

...with MixIT, the easy-to-use mixer that even works with the Falcon...

Why would you need a mixer? Let's say that you're an average ST owner who wants to get into music 'n' MIDI on the ST. What's your first purchase? A sound module – and MIDI Monthly has reviewed plenty of these over the last year including a couple in this issue. All you need then is a MIDI cable to connect it to your ST, a sequencing program and a couple of leads to go off to your hi-fi so that you can hear your favourite songs playing back from MIDI File.

Now what happens if you buy a second sound module, or want to use the sound from an STe? You have four outputs (two lots of left and rights) but only two inputs on your hi-fi amp. Time for a mixer. All this does is allow you to take a number of

outputs and route them to a smaller number of inputs. In our case here, we need a four into two variety.

Intrinsic Technology have the answer. MixIT has four mono inputs on musician-standard quarter-inch jack plugs going to a pair of stereo outputs for connection to either one or two amplifiers. Each input has its own fader and a routing switch for left, right or off. Best of all, the unit is entirely passive – no batteries to run out. The down side of this is that the facilities are limited.

A couple of special leads are included for direct connection to the input of a Falcon, which uses a small stereo jack plug, and to then link the Falcon to an amplifier. The number of uses here are endless – for example, you could connect a number of



MixIT – built to withstand rough handling.

microphones, pan them right or left and record a performance, or mix a couple of record decks and create your own rave track.

At £49, MixIT represents fair value for money and while it will only interest a minority of you, at least it's nice to know that you're catered for.

"Worth considering if you want to get the best out of the Falcon's sound capabilities"

NAME: MIXIT FALCON

COMPANY: INTRINSIC TECHNOLOGY

CONTACT: 081-761 0178

PRICE: £49

MIN MEMORY: N/A

EASE OF USE ★★★★★

DOCUMENTATION ★★★★★

EFFECTIVENESS ★★★★★

VALUE FOR MONEY ★★★★★

OVERALL **81%**

MUSIC MADNESS!

Music creation programs are common, but how about one that also produces random pictures...

A couple of years ago, fractal music programs were very fashionable. Without going into the maths involved, fractals can be utilised to create music of an, er, interesting nature and a few albums have been released on the back of this technology. *Music Mandala* could be loosely grouped within this genre of program although it uses custom algorithms for the creation of music and graphics as opposed to ones created by fractal means.

A song consists of three parts. Starting from a black screen, first there's the Build Up where the three basic screen elements of circle, polygon and coil appear along with up to 15 harmony notes and eight percussive instruments.

Various musical formats are supported including General MIDI and Roland's MT-32 layout to ensure rea-

sonably coherent music. Next comes the Variation where some of the on-screen graphics are overwritten in black to remove them. Music alters by one note per bar and the process is most hypnotic. Finally, there's the Finishing



If you think the picture's a bit off the wall, you should have heard the music!

section where all remaining graphical elements are slowly blacked out and the music gradually fades away.

Sounds very basic? Well, not really. There are a number of parameters that can be changed and each of them has a radical effect on what you see and hear. For instance, the selected key varies the on-screen colours while the time signature affects the polygon's number of sides and the coil's cycles.

Music Mandala uses a "dice" system to allow you to randomise tempo, time signature and length for each part. It will even output MIDI Clock so letting you sync a sequencer or drum machine with it, although goodness only knows why you would want to!

Harmony and percussive instruments can each be selected from eight banks of eight sounds and it is even Falcon-compatible, supporting

"Capable of hypnotic results although you may need to be hypnotised to want to use it!"

NAME: MUSIC MANDALA

COMPANY: NEWTRONIC

CONTACT: 081-691 1087

PRICE: £29

MIN MEMORY: 0.5MB

EASE OF USE ★★★★★

DOCUMENTATION ★★★★★

EFFECTIVENESS ★★★★★

VALUE FOR MONEY ★★★★★

OVERALL **76%**

the 256-colour mode. Those of you into experimental music might consider adding *Music Mandala* to your collection. The rest of us will simply look on in total bewilderment...

PLAYBACK!

TUBULAR BELLS 2

**NEWTRONIC • £24.95 •
081-691 1087**

IN BRIEF: When Mike Oldfield released the original version of *Tubular Bells*, it engendered one of two reactions in people; nirvana or sheer boredom! Bearing in mind that Richard Branson's Virgin record label was launched off the back of the sales, it's fair to say that there were a lot of listeners in the first category.

With *Tubular Bells 2* being released and played live at the Royal Albert Hall, various programmers have put it onto MIDI File including Martin Brannigan for Newtronic. Two disks with over 700 Kbytes comprising the entire 58 minutes or so of the album, each song in a separate folder containing an information text file. The programming includes set-up data for Roland's GS format and only 16 tracks have been used for each song so allowing files to be played back on a Roland Sound Brush – no mean feat when you consider that up to 23 instruments are used per song!

Quality of programming is very high although there are one or two places where the switching from one instrument to another doesn't take place. However, many songs include left and right versions of instruments for realism and some of the arrangements are quite incredible – like five parts of Bagpipes in *Tattoo* panned across in glorious stereo! Roland's Sound Canvas handled playback perfectly, but notes kept cutting out on the MIDI Blaster, reviewed in this issue, confirming the lack of polyphony for this sound module.

ST REVIEW COMMENT: "A good attempt at a very difficult project. Perhaps a little expensive, but if you're a *Tubular Bells* fan you're likely to go out and buy it." ★★★★★

CLASSIC COLLECTION

**WORDS & MUSIC •
£10.95 PER DISK • 091-529 4788**

IN BRIEF: Don't think for a moment that all the MIDI Files on sale are for pop songs – they're not! There is a growing demand for the classics, especially from trained musicians who want to turn off a particular instrument and play it themselves.

To this end, Words & Music have half a dozen song disks in their Classic Collection, each disk containing numerous pieces. For instance, Volume five houses 33 pieces including the likes of Debussy's *Arabesque 2*, Handel's *Water Music* and various piano pieces from Grieg, Schumann and Beethoven.

Other song file libraries sell classical pieces at, perhaps, £25 per file so why are Words and Music files so cheap? The pieces aren't note perfect, although they sound pretty good to my ears, and a minimum of MIDI Control data has been used. Apart from sustain pedal and occasional modulation, the files generally consist of plain note information with the exception of volumes 4, 5 and 6 which have the relevant Program Change number at the start of each track. At £10.95 for so many pieces, you can hardly complain! Perhaps we've all got used to having files supplied with embedded Roland GS data rather than doing a little of the work ourselves.

A small explanation booklet comes with each disk giving the time signature and any tempo changes along with a little background history – a nice touch. Words & Music even have a discount scheme where you can save up to £15 if you buy a total of ten disks...

ST REVIEW COMMENT: "Definitely good value for money. If classical music is your bag then these are worth trying." ★★★★★

With MIDI Song Files available from so many different places, how do you decide which ones to buy? By reading MIDI Monthly's regular review slot, Playback!

MIDI SONG FILES

**BCK • £14.99 PER DISK •
0708 448799**

IN BRIEF: Pop song compilations often appear to be a cop out – simply take a collection of the files that you can't sell and slap them on a single disk! Not so here. Programmed by Heavenly Music, these files are every bit as good as the individual files that Heavenly usually sell themselves except that they've been given the commercial treatment; decent CD-style case, colour label and inlay card.

Currently, there are six disks available: Easy Listening, Beatles Hits, Motown, Soul, Sixties and Pop Party, each at Volume 1 to allow for expansion. Each disk contains ten songs and Heavenly have done their usual job of carefully embedding each track with Roland GS/GM set up data. It's a definite connect-up-and-go job.

I listened to the Motown volume and was totally blown away. *Sir Duke*, the Stevie Wonder song, has an incredible brass section while the drum track on Lionel Richie's *All Night Long* is totally convincing. How do they do it? Simple. Heavenly Music, namely Joe and Pauly Ortiz, are musicians and so can program on a MIDI File what they are used to producing on a record – quality music. To this end, the note timings have been corrected but not the velocity levels, giving a highly realistic result.

ST REVIEW COMMENT: "The Rolls Royce of commercial song files. Don't take my word for it – do yourself a favour and buy a volume to hear how a song file should be programmed..." ★★★★★

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FIRST IMPRESSIONS

Richard Barton brings you an exclusive preview of the latest RPG to cross the Channel from France...

BLACK SECT

If you want a good adventure game, take a look across the Channel at the French. Since the days of *Captain Blood*, they have produced visually stunning, complex adventures that always demand a second look. Unfortunately, they've had their disasters, too, but the early look of *Black Sekt* suggests that this will be one of their successes.

It is set on the (typically French!) Yorkshire Moors following the murder of your grandfather. A spell book that has protected the village has gone missing and a mysterious black sect is infesting the region.

Your mission (should you decide to accept it!) is to avenge the death of

your grandfather and return the spell book to its rightful place. To do this, you must come face to face with the Black Sekt.

THE PLOT

Hobdale, situated in the middle of the Yorkshire Moors, was a quiet little village. Some years ago, weird happenings began to occur. People and things started disappearing. The people started to fear for themselves and their loved ones. The doubts were beginning to settle in.

It was feared that the town was haunted. The only solution that

they could see was to call in Homorius the Great. He was known throughout the land as a wonderful magician and exorcist. Homorius duly came and started chanting and reciting from his book of spells. Eventually, peace was restored and the gloom lifted.

Before he left, he told the villagers: "Brave people of Hobdale, the peace has returned to your vil-

lage. You have no reason to fear any more.

"I must get going, but before I do, take this spell book. Provided you keep it safe, it will protect you. Do not lose it."

With that, he took to the road and left. The book was entrusted to the patriarch of the village, your own grandfather. For many years, Hobdale was peaceful until



This bed's for looking under, not sleeping on!



This is the last place you want to end up!



Is the dungeon for prisoners or are there clues here?



This looks more like a French village than a Yorkshire town!



Halt, friend or foe – can the skeleton help, or hinder?

one evening, a stranger was seen entering.

He walked heavily and his face was the type that you've seen before, but can never quite place. He was the type that raises the hackles on dogs as he walks. Suddenly, he stopped and lifted his arms. The villagers were terrified. They ran from him and locked themselves in their houses and bolted the shutters.

That night it was particularly dark. It was as if the moon was too afraid to shine. A sharp piercing scream filled the inky blackness.

The following morning, the body of your grandfather is discovered – and the book of spells is missing...

BLACK SECT

A lot has gone into making *Black Sect* as realistic and atmospheric as possible. The script is fascinating and well thought out. As with a lot of French games, the graphics are superb. I even had to double check that the screen shots supplied

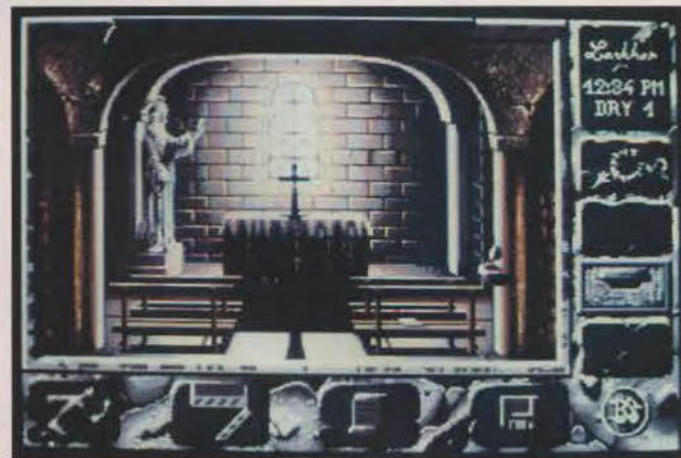
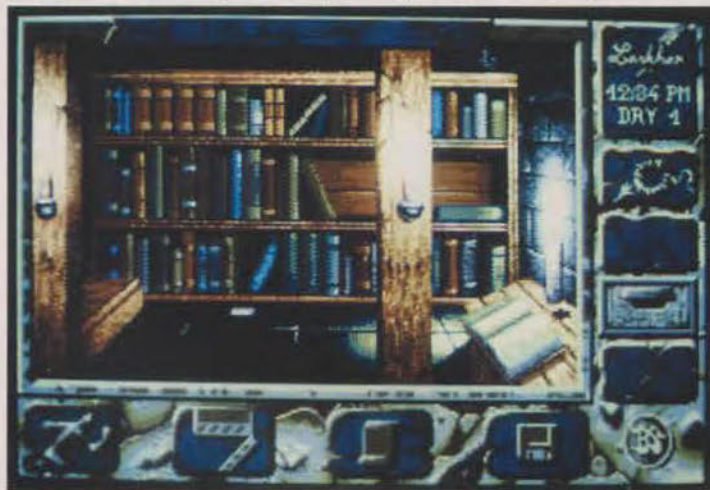
with the preview material were from the ST!

There are 34 locations to discover, 17 inside and 17 outside. Most of the locations feature interactive characters that will either help or hinder you and each screen also highlights animation.

Control is by keyboard or mouse and is laid out simply, so you can concentrate on the adventure, not how to move around. With 16 different commands available, this is a blessing. You can even examine objects with a magnifying glass.

As the clock and calendar change, so do the graphics, allowing for day and night and the seasons. Add to this varying reactions and the behaviour of the interactive characters and a superb musical background along with great sound effects, and the result is a role-playing game that promises to keep you glued to your monitor, getting lost in the atmosphere of *Black Sect*.

Clues can be found anywhere. Try reading books or searching the shelves.



Praying at the Altar may help!

INSIDE INFO

THE AUTHORS

Black Sect was written by Pierre Godey and Jean-Claude Lebon, both teachers and intrepid games players. Like most of us, they love to play adventure games and discover new plots, analyse new clues and get together to share their exploits.

In May 1990, they decided to pool their experience and write a game for themselves. They produced *La Secte Noir* on the Amstrad CPC computer. This was well received by the public and Lankhor Software picked it up and arranged for its adaptation to the ST, PC and Amiga platforms.

The English version of the game, *Black Sect*, is totally new. It takes advantage of the technical qualities of the more advanced media.

THE GRAPHIC ARTIST

At just 20 years old, Serge Fiedos is already recognised as a great artist in his field. He was studying at the Beaux Arts d'Orleans when he decided to interrupt his education to prove his talent and skills with *Black Sect*.

Despite his youth, Serge shows a maturity and attention to detail in each picture. Using the 16-colour palette available on the Amiga and ST, he has managed to capture the sinister and mysterious atmosphere of medieval Yorkshire during the reign of the *Black Sect*.

THE SOFTWARE HOUSE

Lankhor Software are based in the avenue du General de Gaule in the heart of Paris. Their first excursion into the world of role-playing games came in 1987 with *Mortville Manor*, a classic detective story.

Following the release of this game, along came two Tilt D'Or 1987 awards for the best sound and best adventure game. When it was ported to the PC, it won two more awards in 1989 for the best PC adventure game.

The sequel to *Mortville Manor*, *Mauteipi Island*, won five awards for best adventure game and best production for Lankhor in 1990.

UBI-Soft are the UK distributors for Lankhor. A lot of French products don't get the recognition they deserve due to preview material not being available. If *Black Sect* is as good as the publicity material, then maybe the software houses will recognise the need for the public to be informed of new products, rather than just letting them creep onto the shelves!

STONE AGE

A small green dragon's lost in a deep, dark cave. Stu Redman dashes to the rescue...



One wonders why such a fearsome beast would worry about being lost and alone...

It seems so recently that the Lemmings appeared in all their infuriatingly endearing manic glory on our STs for the first time, setting a new and nearly impossibly high standard for puzzle games everywhere to follow. It is, in fact, almost two years ago now, and since that time all manner of offerings have laid claim to the title King Puzzler, none of them – not even the Lemmings Tribes – capturing our hearts or torturing our minds in quite the same way.

Almost every major software company, plus literally dozens of PD and shareware outfits, have deluged the home computer market over the last couple of years with hundreds of puzzly affairs ranging from Lemmings, Tetris and Pacman clones to fictitious blobs such as Tiny Skweeks, and the surreal rabbits of Bunny Bricks fame.

With such a massive array of advanced and powerful equipment to work with, it is strange that so many should continue with a policy of the basic simplicity which is exemplified in so many games in the genre.

One might venture that they are drawn by this very simplicity; in many cases once the basic game engine is constructed it remains only a matter of calculating, and possibly mapping, the levels, before dropping in the graphics and characters.

An over-simplification maybe – but in comparison with the likes of Sabre Team, The Chaos Engine and any

good flight sim you care to name, puzzle games remain a relatively straightforward programming concept.

Whatever the reason, there appears to be no respite in the crowded market, and now Grandslam have decided to test the water for the first time.

Stone Age is the brain child of German developers Eclipse, a far from prolific team who last came to light some 18 months or so ago with the release of the (somewhat underrated and probably forgotten) shoot 'em-up, Wings of Death.

We are asked to step back some 180 million years, to a time when even the Amstrad was unknown and dinosaurs stalked the earth in their hundreds.

Only one such beast is of concern to us – a weak specimen by the dino's high standards, and one who would seem to have little or no sense of direction, since he is lost deep underground in a vast labyrinth of caves. Most gamers would be pleased at the chance to become a hero, this opportunity being precisely what is on offer here, since we are faced with the task of rescuing the prehistoric bumbler not once, not twice – but 100 times!

It is a vast labyrinth indeed. On every level there stands a tantalising

exit which when reached simply opens up and spews us into another stage of this tricky game.

The idea is very simple. Each level comprises just one screen, filled to varying degrees with small square blocks. The dinosaur (wish I could call something else, but in a rebuke to the current cutie-pie characters, the beast remains nameless) appears, and must be guided across the screen to the marked exit.

Before the exit is reached of course, a very real problem which needs to be overcome is the irrefutable fact that there is no logical way out. Some of the blocks can be walked upon, others act as blocking agents and must be walked around. Some can be traversed just once before melting away, others melt immediately they are trod upon and result in the loss of a valuable life.

Gameplay revolves mainly around the moveable blocks, some of which are multi-directional, while others move just vertically or horizontally. Dino – if he manages to find his way onto a moveable block – can be transported upon it, but again this is a problem in itself, as much thought is usually required before the correct manoeuvres enable any progress to be made.

The layout demands that the blocks are capable of movement independent of the flummoxed beast, and indeed many of the valuable seconds in this timed game will be spent rearranging the scenery in such a way as to make travel across the screen possible.

Eclipse have included several nice touches in their game. Graphically it has to be said that the whole affair is very flat indeed, but not quite as bland as it may have been, was it not for the choice of surreal backgrounds. A soundtrack of extremely mellow but tolerable Euro-pop prevails throughout – several tunes are included and can be selected at the touch of a key. Other functions allow

for the toggling of certain elements in the levels, such as the melting blocks or the extra time bonuses, and the whole colour and brightness of the game can be altered.

Were it not for these innovations of sorts, Stone Age may very well have looked like a good quality PD game. As it is, the simple gameplay makes it easy to play, and the tougher later levels provide a fair challenge even for seasoned puzzle fans. But the repetition of level after level of small mono-coloured blocks and the tiny sprite – relegate Stone Age to the Nice-Try-But-For-Die-Hards-Only department.

Simple gameplay
Various options

PROS AND CONS

Bland graphics
Too repetitive

"Addictive for a time, but ultimately a chore"

NAME: STONE AGE

COMPANY: GRANDSLAM

CONTACT: 081-680 7044

PRICE: £25.99

RELEASE DATE: JUNE 1993

MIN MEMORY: 0.5MB

GRAPHICS ★★★★★

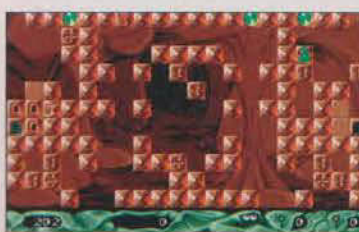
SOUND ★★★★★

PLAYABILITY ★★★★★

VALUE FOR MONEY ★★★★★

OVERALL 66%

Among the options is the chance to rearrange the back-grounds.



Find your way to the green gate by moving around on the blocks. It's not as easy as it appears!

THE KIXX INSIDE

OPERATION STEALTH

**OPERATION STEALTH • KIXX XL • HARD DISK
INSTALLABLE • £14.99**

IN BRIEF: As stated many times in these pages, the French have a superb knack of producing moody, atmospheric games and this is no exception. From the opening title sequence, you know you're in for a game that will keep your interest and keep you coming back for more.

You are John Glames, agent DSC 3 and you've been called in to return the missing Stealth fighter plane that's been stolen. Armed with your false briefcase, cable watch, safe-cracking box and cigarette case with fingerprint-revealing cigarettes, you set off for Santa Paragua to look for clues.

The program was produced by Delphine Software in France and is one of the Cinematique series, so if you've ever played any of these games before, the controls should be familiar to you. If not, you'll find everything explained in the manual and the system is quick to learn and easy to get along with. The game, however, is a little harder!

ST REVIEW COMMENT: "An atmospheric adventure that should keep you coming back for more. Well worth the money."

0000



Your first challenge is to get past the customs officer

VFM

US Gold have launched a new range of mid-priced games called Kixx XL. To celebrate, Dave Jones offers you a review of the latest five, followed by a great competition to win them all...

Kixx XL is a new range of mid-priced software from US Gold. All of the games have been previously released by other software companies like Microprose or Lucasfilm. This means that you get a good range at a good price. Here is a review of the five latest games to come out of the Kixx XL stable. When you've read about them, turn the page and enter our free competition to win them all.



One of the many views available in M1 Tank Platoon

M1 TANK PLATOON

**M1 TANK PLATOON • KIXX XL • HARD DISK
INSTALLABLE • £14.99**

IN BRIEF: Microprose are probably the best company in the UK for well packaged, quality simulations. If you enjoy playing at Generals, then you'll like M1 Tank Platoon.

You command four tanks, each with four men. As you can't actually control 16 men all the time, the computer does it for you allowing you to take over any position at any time for direct handling of difficult situations. The Abrams M1A1 battle tanks can travel at up to 40 miles per hour. They are heavily armed as they are intended to go into battle first.

Fight a complete campaign or just one battle – the choice is yours, as are the conditions. Wage war during the day or night, in snow, mud, rain or clear weather. The possibilities are endless.

ST REVIEW COMMENT: "If you like war games, then M1 Tank Platoon is for you. Its 200-plus page manual is superbly detailed, so you should have no problems getting to grips with the game. Graphics and sound are good and gameplay is excellent."

0000

PIRATES

PIRATES • KIXX XL • HARD DISK INSTALLABLE • £12.99

IN BRIEF: This is a lovely strategy game with a difference. You are an apprentice captain of a pirate ship in the time of high treason on the high seas. You can plunder towns and other ships or you can sneak into the town for a night raid. Once inside, you can trade with the merchants, visit the governor or even visit a tavern where, if you're lucky, you can buy information.

The object is to become successful and make enough to retire from the life of crime that brings danger around every corner. Combat takes the form of sword fights with other captains and governors of towns and is reminiscent of the old Cinemaware games.

The graphics and sound effects are not stunning, but they are adequate as this is really a cross between a game and a simulation.

ST REVIEW COMMENT: If you fancy the idea of plundering, pillaging and raping (not so much of the raping), then this is for you. It's an original concept and plays well. Another game to get deeply involved in.

★★★★



Fighting with the enemy will reward you with food, property and other valuables

GOT A HARD DISK?

Some programs can be installed onto hard disk. This is a boon to hard drive owners as it means that screens are updated faster and saved games can all be in one folder on one drive.

All the games except for *F-19 Stealth Fighter* can be installed. If there are no instructions in the package, just copy all the files into one folder. If the main loader program is in an AUTO folder, remove it and place it in with the other files. The game should now run by double clicking on the starter program.

F-19 STEALTH FIGHTER

F-19 STEALTH FIGHTER • KIX XL • £16.99

IN BRIEF: *F-19 Stealth Fighter* is another Microprose simulation. This time, it's the top secret Stealth Bomber that's invisible to radar. There are a variety of missions to follow through ranging in difficulty. The training mode is designed to help you familiarise yourself with the controls and handling.

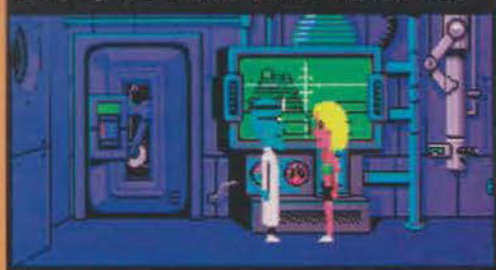
Missions can start and end from the land or from an aircraft carrier. Obviously, the latter is harder to land on and can cost the Navy millions in lost aircraft and personnel. The crew quota of the Stealth is just one person.

As with all Microprose simulations, a superb manual is provided with nearly 200 pages. It covers everything about the simulator and is so detailed, it has a nine-page index! There is a section on further reading for those who want to know more about this amazing craft...

ST REVIEW COMMENT: "A superbly detailed simulator that takes time to fly to any degree of competence. Not one for the beginner unless you're happy to crash a few times before getting the hang of it."

★★★★

Well, my dear. Hope you're having fun!



The scientist has the girl. Can you save her?

MANIAC MANSION

MANIAC MANSION • KIXX XL • HARD DISK INSTALLABLE • £12.99 (CLUE BOOK AVAILABLE £7.99)

IN BRIEF: *Maniac Mansion* is a Lucasfilm production, but if it was a movie, it would probably have never been made. It's an adventure that really doesn't make the grade as anything other than an average PD game. The movement is clumsy and the action is slow. Graphics and sound can only be described as adequate.

The premise is that the mad scientist has got the girl and her boyfriend must save her. You play the part of the boyfriend and you can choose two friends to help you on your quest. Move through the mansion avoiding Nurse Edna, a mad woman with strange fetishes!

It's a shame that this game is let down by the poor graphics and awkward gameplay. It has the potential to be a good puzzle, but, for this reviewer, it doesn't work.

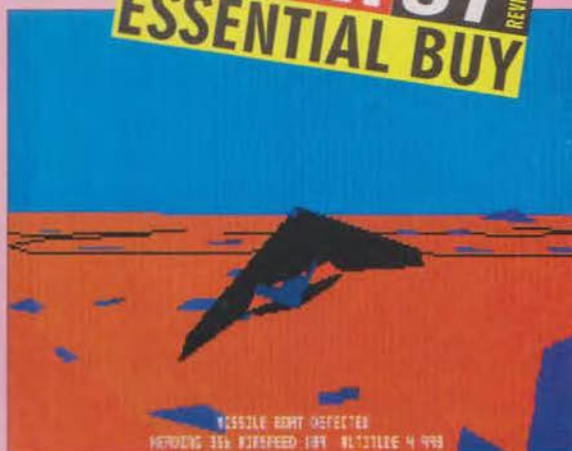
ST REVIEW COMMENT: "This is to computer games what Abbott and Costello were to horror films. The only difference is that Abbott and Costello were funny! There's nothing to recommend this game, except for the ardent adventurer who has nothing better to do. Not one of Lucasfilm's best."

★★

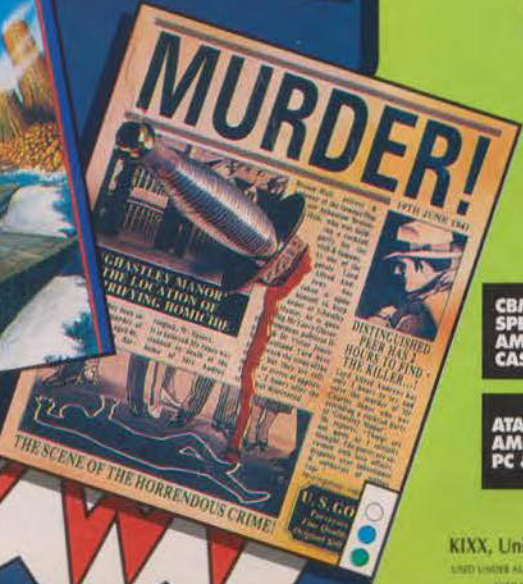
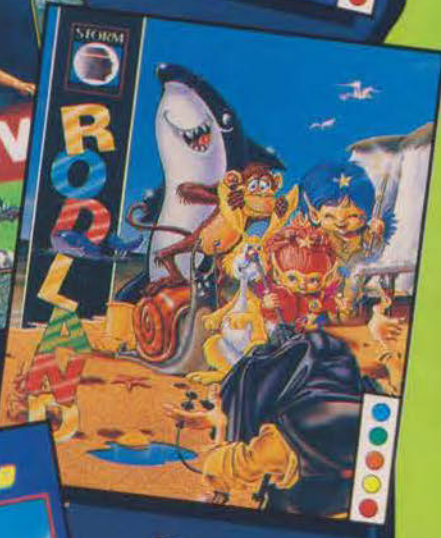
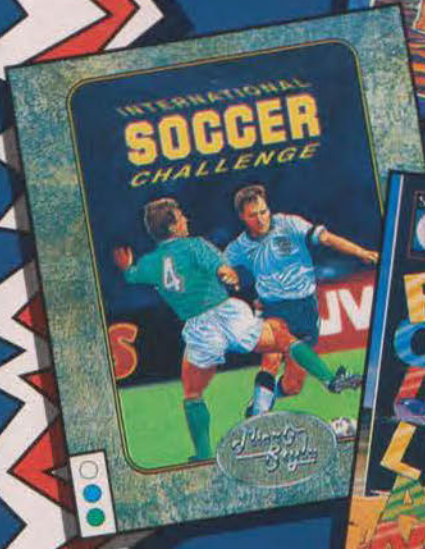
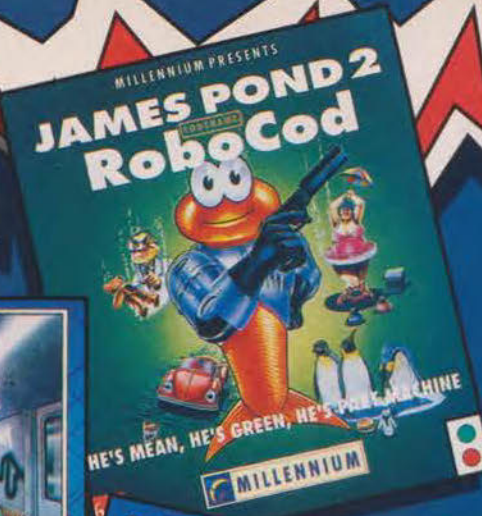
Simple graphics and menu to select your moves. Not very inspiring.



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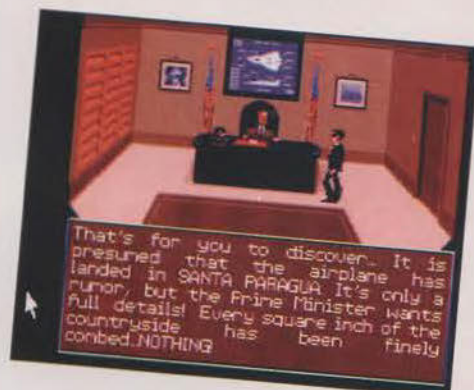
KIXX, Units 2/3, Holford Way, Holford, Birmingham B6 7AX. Telephone: 021 625 3311

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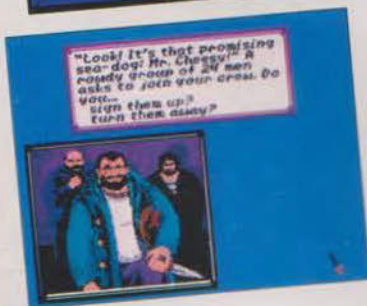
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- ATARI ST/E DOUBLE SIDED DRIVE REQUIRED

WIN THE COMPLETE RANGE OF

We have three sets of all 10 Kixx XL games to give away in a great free competition.



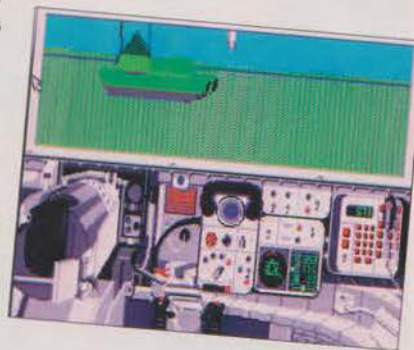
KIXX XL SOFTWARE!



You've just read about the five latest products available. Now you can win not only the five reviewed, but all 10 releases available for the ST.

Our three winners will each receive:

- **F-19 STEALTH FIGHTER** Fly the latest top-secret fighter plane.
- **PIRATES!** Swashbuckling adventures on the high seas.
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- **INDIANA JONES AND THE LAST CRUSADE - THE GRAPHIC ADVENTURE** Movie-based fun from those Lucas people again.



HOW TO ENTER

To win one of these sets, all you need to do is answer the following questions. The answers can be found in the reviews on the previous pages. Put your answers on a postcard (or the back of a sealed envelope) and send them to us here at ST Review. The first three correct answers drawn out of the hat will win.

1. What is the make of tank in *M1 Tank Platoon*?
2. What country do you go to look for the Stealth bomber in *Operation Stealth*?
3. What star rating did we award to *F-19 Stealth Fighter*?

Normal rules apply. Multiple entries will be fed to the office cat. There is no cash alternative. Closing date is June 24, 1993. The editor's decision is final and no correspondence will be entered into.



PD ZONE

FATEMASTER

TUMBLEVANE PDL • DISK NO:
SPC.02 • £1.50 • MEMORY: 0.5MB •
SHAREWARE

ATARI ST
BUDGET BUY

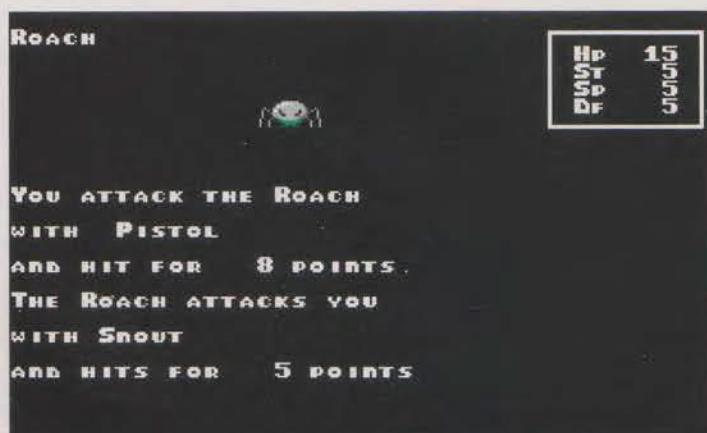
IN BRIEF: *FateMaster* is an eighties-style arcade adventure. You take the role of commander Tsin-Fei who has been sent to the planet Tafoi in an effort to depose the Swokis and restore the rightful Galluk rulers (I hope you're getting all this!). Naturally, plenty of puzzles and nasties lie along the way and it's your job to use the objects liberally scattered around the planet to further your cause.

The action is flip-screen and any messages and objects you discover are described at the bottom of the display. Should you meet a monster, the screen switches to attack mode where you get the opportunity to use some of your weaponry. The game ends when you lose all of your 20 strength points. Sparse samples are all that's offered in the sound department, but it's unlikely that a warbling chip tune would improve matters.

ST REVIEW COMMENT: "It has its niggles, but *Fatemaster* is still one heck of a game once you get into it. The balance of puzzles and skill is set at exactly the right level and the presentation is also spot-on. Highly recommended."



Take a trip back to eighties-style arcade adventures with *Fatemaster*. As simple as the graphics look, there's a great game lurking in there.



How many roaches do you know that can take a .22 through the head without dying? I don't know - some games have no realism!

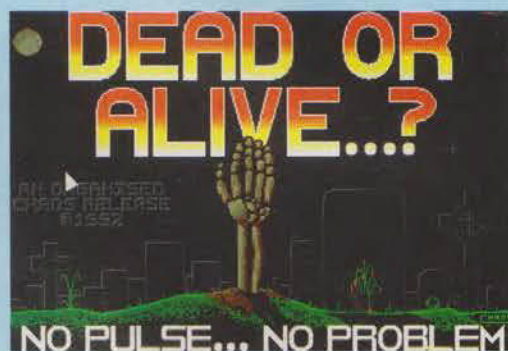
DEAD OR ALIVE

TUMBLEVANE PDL • DISK NO: OCL.1 • £3
• MEMORY: 0.5MB • LICENCEWARE

IN BRIEF: While most of the games world forges further and further into 'game experiences' and virtual reality, PD authors seem perfectly content to turn out text adventures that would look quite at home on a 1980's 8-bit machine. *Dead or Alive* claims to be different. It's still text only, but the author has used

every single kilobyte of the double sided disk to cram in devious puzzles and atmospheric text. Well, we can only hope...

The game starts with you laying dazed in the gutter and having faint recollections of a mysterious antique shop and a red gem. Yes, in common with all truly great adventures, you are only given the scenario - it's up to you to find out how to play the game. The difficulty level is quite high but things get far easier once you begin to appreciate the author's twisted sense of humour! Almost everything you come across in the game has a use and there are numerous nice touches, such as the fully functional one armed bandit in the chip shop.



The graphics end here - beyond this point it's text only. But don't worry - a strong plot and a weird sense of humour await!

Outside Pub

DEAD OR ALIVE...?
© CHIPS SOFTWARE 1991
AN ORGANISED CHIPS RELEASE

You are standing on the much-used pavement outside your local, in the middle of a typical Maltonian downpour. A fairly tedious road leads north and south. Various pedestrians hurry past you, in an embarrassingly futile attempt to evade the constant barrage of rain.

>in

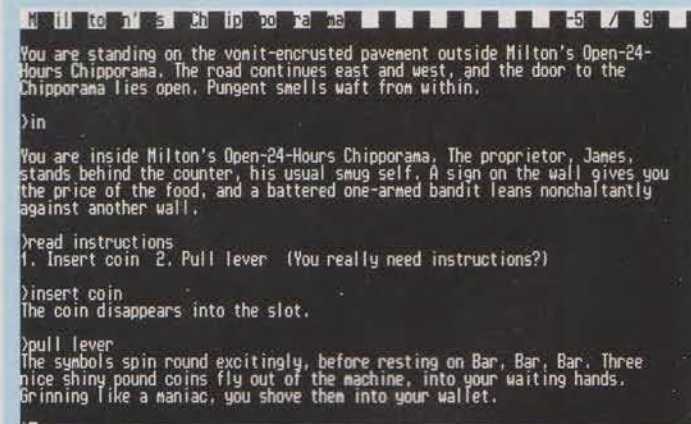
You have arrived at a T-junction. The main road continues to the north and south, and a narrow road leads, er, west to what appears to be a pair of gates.

>o

Outside pub

>

ST REVIEW COMMENT: "As text adventures go, *Dead or Alive* is a good one. At least there's a touch of humour to take your mind off the lack of graphics. The grammar is also to a very high standard."



Dead or Alive is an enjoyable game despite the lack of graphics and the use of puzzles is one of the best we've seen in the PD.

CHAOS

**CALEDONIA PDL • DISK NO: GM-151 • £2.50 •
MEMORY: 1MB • PUBLIC DOMAIN**

IN BRIEF: *Chaos* is a game of magic played by between two and eight players. The idea is to be the last surviving wizard on the board by casting bigger and better spells than your opponents. The game is played in rounds and each turn gives you the chance to slide your wizard and created creatures a set number of moves.

Just to complicate things, spells aren't always successful. The more powerful the spell, the less chance you have of pulling it off and it's here that illusions come in handy. An illusion is always 100% successful and appears exactly as any other spell, the only difference being that it is unable to attack. In this way, by creating a number of illusions, your opponent can be cornered and forced to disappear in a puff of smoke. All in all it's a bit too much like mythical chess without the thrills!

ST REVIEW COMMENT: "It takes quite a while to learn how to play *Chaos* properly and when you do succeed you begin to wonder whether it was worth it. It's an unusual concept and the sound samples are great, but it lacks any real depth."

000

WIZARD'S SPELLS
 A - DISBELIEVE
 C - MAGIC BOLT
 E * GIANT BAT
 G * HORSE
 I * ZOMBIE
 K * MAGIC FIRE
 B * DARK CITADEL
 D * LION
 F - CROCODILE
 H * JUSTICE
 J - WALL
 L * GIANT BAT

PRESS '0' TO CANCEL SELECTION

All sorts of nasties can be summoned to help you in your quest to win, but be warned – the bigger the spell the more chance it has of failing.



Chaos boasts a huge number of samples taken from top TV comedy series, but it's not nearly enough to lift it out of the "sounds far better than it plays" category.

Answer questions to increase your spins and build a gargantuan score – or just nip down your local and get the same thrills for 10p!



The presentation is top notch – the new logo is particularly impressive – but unfortunately the game has just been done too many times before.



GALACTIC FRUIT BOWL

**MERLIN PD • DISK NO: MPD.1270 • 99 •
MEMORY: 0.5MB • SHAREWARE**

IN BRIEF: Take a standard one-armed bandit simulator, add a few questions, give it a dramatic title and you have *Galactic Fruit Bowl*. Yes, in yet another attempt to make sure you spend 100% of your time in front of your ST, DCS have come up with this definitive home version of everybody's favourite money-waster.

In common with all Dunces' Cap productions, the presentation is very polished, with metallic graphics and sharp sound effects dripping from every screen. The game is played with a traditional credits system, although your ST is unwilling to accept piles of 10p's (we've tried!) so extra spins are earned by answering questions. Control is completely via the keyboard and the assignments are less than logical, although you do get used to them eventually.

ST REVIEW COMMENT: "Galactic Fruit Bowl is very well presented, but does the ST really need another fruit machine simulator? Is it just me, or is the whole idea pretty pointless without the cash incentive anyway?"

0000

DROP DOWN WORDS

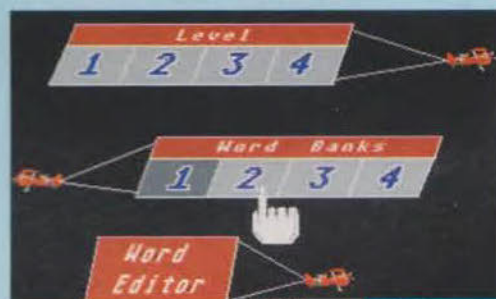
**MERLIN PD • DISK NO: SES.008 • £2.95 •
MEMORY: 0.5MB • LICENCEWARE**

IN BRIEF: *Drop Down Words* is the latest in a long line of educational programs from Shoestring software. 16 is aimed at very young children who are in the process of learning to read and write, the idea being to type words on the keyboard as they are jettisoned from a colourful plane. Succeed and a Rick Dangerous character jumps out of the word and escapes to safety. On higher levels, the word is visible only for a couple of seconds and must be typed from memory.

As always, the graphics are wonderfully colourful and the attention to detail is superb. Even the interface is easy enough to be handled by the target age group – a simple point forgotten by far too many educational programs. Four banks of words are included with the program and more can be added through the built-in word editor.

ST REVIEW COMMENT: "Shoestring are renowned for producing top quality educational titles and *Drop Down Words* is no exception. The game doesn't possess a huge amount of long lasting playability, but for £2.95 who's complaining?"

0000



It's all great fun for the first few games, but will it have any long term interest?

Four banks of words are included with *Drop Down Words* as standard.



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GENERAL

- GEN-02 ST-Tour (Specially for beginners) 'S'
GEN-04 Your 2nd ST Manual (A MUST) 'S'
All the little things (and some not so little) that our friends at ATARI should have told you but didn't. This is the manual that should have been supplied with your computer (at least in our humble opinion).
GEN-05 Adventure Writer/Skynup + 4 more 'D'
GEN-06 Archive Suite (back-up in less space) 'S'
GEN-09 ZX-81 Emulator + lots of programs 'D'
Back to those halcyon days of the ZX-81
Emulate (if you must) this forgotten unit
Formfinder 2.1 (find a winner!) 'S'
If you like a flutter on the horses then maybe this program can help to make it profitable!
This is a Working Demo. Full version available
60 assorted samples (SPL Format) 'D'
GEN-16 Firstbase DB+7 more good programs 'D'
GEN-22 E-Plan (Electronic Circuit Designer) 'S'
GEN-24 Joke Database (Laugh with us!) 'D'
GEN-25 Quartet Samples II (730k of samples) 'D'
GEN-30 Film File Enquiry 'D'
With this unusual Database you can keep track of all your favourite Films, Actors, Directors etc. Lots of classic films inc
GEN-31 Data File (TV Titrer/Asst. Chef/Party) 'D'
Great value on this one; A Video Titrer and extensive Recipe/Instruction Database + a bevy of alchemical cocktails!!
GEN-34 Sozobob 'C' (language) 'D'
GEN-35 Spectrum Emulator (with programs) 'S'
Introduce your ST to that long, long ago entity, the ZX SPECTRUM complete with working programs

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DEM-88 Light Speed Demo 'D'
DEM-90 Delirious Demo (2 DISK SET £2.75)
DEM-95 Wings of Death Music Demo 'D'
DEM-97 KLF Demo (House hit + dancers) 'D'
DEM-98 Star Wars Rap 'D'
DEM-101 Spinning Dolls + Shiny Bubbles 'D'
This one takes a while to load but the end result is more than worth the wait
DEM-84 Things Not to Do (EXCELLENT) 'D'
Very Humorous, animated account of things not to do and the result if you do!
DEM-67 Fish & Chips (GET THIS ONE) 'D'
Loads of excellent demos with some very funny interludes between them
DEM-46 European Demo's (2 DISK SET £2.75)
DEM-44 Skid Row (2 DISK SET £2.75)
DEM-43 Punish Your Machine (2 DISK SET £2.75)
Countless demos on all of the above two disk sets. Can any ONE user really handle all these amazing demos and stay sane?
DEM-75 Dark Side of the Spoon 'D'
DEM-82 Wasted Years 'D'
DEM-70 Life a Blitch 'D'
DEM-54 Gateway to Hexland 'D'
DEM-48 Summoning the Spawn 'D'
DEM-100 The Run (animation from T. Richter) 'D'
This one is so much better than the original AMIGA version
DEM-55 Art Machine 'D'
Sit back and enjoy this stunning artwork

BUSINESS

- BUS-02 ST Writer Elite (Good Word Pro) 'S'
This is still one of the very best WP's around written and released into the Public Domain by ATARI themselves. This vers.4 is a must
BOS-03 EZ Text+ (Working DTP demo) 'S'
Working demo of excellent DTP program (Full Version Available) see ad for ZZ Soft
BUS-06 Opus (Professional Spreadsheet) 'D'
Best S'sheet available without a mortgage!
BUS-11 Deskjet Drivers (loads of drivers) 'S'
If you've got a Deskjet Printer and are in need of drivers, specific or general then this is the disk you're looking for
BUS-12 Fastbase (Excellent First Database) 'D'
BUS-16 Calamus Fonts (28 extra fonts) 'D'
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BUS-19 P. Press Support (Extra graphics) 'D'
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BUS-26 Organiser/S'sheet/Word pro +7 others 'D'
BUS-27 ALICE... Excellent Text Editor 'S'
BUS-28 Publishing Partner Fonts (8 + editor) 'D'
BUS-29 EZ-Label/Cardfile/Mailmerge + 8 more 'D'
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MIDI-04 42 SNG files with CZ101 player 'S'
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MIDI-18 DX & FB01 editor & librarian 'S'
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Working Demos of these two great commercial MIDI packages
MIDI-22 Super Conductor sequencer + utils 'D'
MIDI-09 32 Track Sequencer + utils 'S'

COMMS

- COM-02 Galactic Empire... Get on-line game... 'S'
You'll need two ST's & null modem cable 'S'
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COM-07 Freeze Dried Terminal 'D'
COM-08 View D/L files when off-line + 4 'D'
COM-05 D-Term with Z-modem module 'S'
COM-06 Mo-Term Elite (for buffs) 'S'

ART & GRAPHICS

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No.1 in STR's PD Top Ten! This prog will process your pics in ways you will not believe: Curve, Twist, Wave, Tube, Palette edit, Dither, Animation and far more. Uses Degas, Neo & Tny format
GRA-24 Paintlux (full feature paint/art prog) 'D'
GRA-20 Kozmic (needs 1 Meg) 'D'
Create fantastic, colourful psychedelic patterns on your ST & save to disk
GRA-17 PAD (Mono Art program) 'D'
Absolutely the best Mono art package we've seen to date, many commercial features and the ability to hold many screens in memory (1 Meg min)
GRA-27 Mono Pictures (43 high-res pics) 'D'
GRA-10 Colourburst II (+5 other programs) 'S'
A very good little Art/Paint prog also on the disk: MAC to Degas converter Fine Line: art prog using Bezier/Spline
GRA-11 A.I.M. (Atari Image Processor) 'D'
Exactly what it says, if you can create an image on your Atari then you can process, add or alter it with A.I.M.
GRA-14 Ani-ST 'S'
Excellent Art & Animation package that started life as a commercial art program costing £89.95!!
GRA-31 Kid Publisher & Master Doodle 'D'
A DTP package + Art/Paint program both good starting points for the kids
GRA-32 Colourspace 'S'
This is another program that started life as a commercial package now released as Shareware by Jeff Minter. Create your own colour & light show. Turn up the music, sit back and be amazed
GRA-33 Sprite Works 'D'
Art Prog geared towards creation of Sprites for use in your own programs
GRA-28 Hi-res Art 'D'
4 programs & pictures for Mono users
GRA-1 Pictswitch 7.0 (needs 1 Meg!) 'D'
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GRA-2 Play - IT 'D'
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TRAX-47 Mega Tracker (4 n/trackers) 'D'
Suit ST or STE + 6 modules
TRAX-48 STOS Tracker (for STOS users) 'D'
TRAX-37 MUG AMIG 3 'D'
5 outstanding Amiga converted mods
TRAX-45 Rave On (10 mods in Rave style) 'D'



WARPZONE PDL

53 Ropewalk, River St.
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GAMES

- GAM-79 VIOLENCE (brill shoot-em-up) 'D'
- No. 4 in December's STR PD Game TOP 10
- GAM-98 Bubbles McGee/Viking + 6 more 'D'
- GAM-07 Clowns & Missile (8-bit clones) 'S'
- GAM-22 AstroDodge/Subhunt + 10 more 'S'
- GAM-28 Question of Snooker/Frogger + 1 'D'
- GAM-34 X-word/Bugs/Warrior + 2 more 'D'
- GAM-36 Klaxtron/Entombed/Mr Dice + 2 'D'
- GAM-38 Caves of Rigel/Froggy/Harris 'D'
- GAM-45 Die Alien Blob (very addictive) 'S'
- GAM-51 Battleships (with speech) + 2 more 'D'
- GAM-59 Dungeonz/Gravity/Maze + 3 more 'D'
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- GAM-84 Tetris/Drachen + 4 (MONO games) 'D'
- GAM-85 Mutant Camel/Lamatron (1 meg) 'D'
- GAM-88 Odeus & Sir Ramie Hobbs (adv) 'D'
- GAM-93 Mars Maze 'S'
- GAM-95 Lazerbas II/Lazer Racer + 3 more 'D'
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- CLIP-8 Clip Art Vol. 8 'D'
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- MXB-12 Grammar check/Loan calc + 10 'S'
- MXB-10 Diskmech/ST Init + 11 others 'S'
- MXB-21 Quark... 30 Sci-Fi stories on disk 'D'
- MXB-18 Professional Astrology 'S'
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author
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- MXB-04 12 ass'd utils inc. Codefind/Arc 'S'
- Inc. Archive prog. Assembler to GFA STD
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- UTIL-27 Sagrotan (Virus killer, very good) 'D'
- UTIL-38 Vault (best HD back-up) + 5 more 'D'
- UTIL-02 System 2 (replacement op. sys) 'S'
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- UTIL-40 ST CAD II (excellent CAD prog) 'D'
- UTIL-41 Spreadsheet/Sector edit + 4 more 'D'

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- As reviewed in March STR, you have just
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your heart out!!!
- MUS-22 to 27 Peeks & Pokes 1 to 6 'D'
- All these tracks are of the same quality as
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ULTIMATE GFA DATABASE

FLOPPYSHOP • DISK NO: LAN.3613 • £2.50 •
MEMORY: 0.5MB • PUBLIC DOMAIN •
FALCON-COMPATIBLE

IN BRIEF: There are very few GFA programming problems that haven't been tackled in the disk-based ST press over the years, but finding the right article just when you need it is – let's face it – impossible.

Fortunately with this disk in hand, it's a problem that you can forget about because within these sectors you will find a reference to almost every GFA article ever published.

Areas covered include file handling, picture compression, graphics programming, and many, many more. Sources are mainly recognised magazines such as DBA, ST News, GBUG and The Ledgers, a large number of which are available from any PD library. The whole package is neatly wrapped up in a GEM shell and although no search facilities are included everything is so well organised you really don't need them.

ST REVIEW COMMENT: "An excellent disk for all GFA programmers, but the big problem is going to be getting hold of some of the older mags. Floppyshop stock a good range of ST News, Ledgers and the DBA Magazine, but you're on your own for the others!"

0000



A huge number of articles are mentioned, but all are easily found thanks to the categorised menu system.

JIMBASE

FLOPPYSHOP • DISK NO: UTL.3620 • £2.50 •
MEMORY: 0.5MB • SHAREWARE •
FALCON-COMPATIBLE

IN BRIEF: Jimbase is a cross between a card index and a database. Its main asset is ease-of-use, and the slick GEM interface helps out enormously in this department. The main database window sits in the middle of the screen and all operations, apart from the entering records, are carried out with the mouse.

Each record can have notes or pictures attached to it, giving an almost multimedia feel to the program. This effect however is rather spoilt by the lack of a proper windowed display system – the picture is just plastered all over the screen and cleared when you want to move back to the database.

Look upon Jimbase as a professional database and you'll be disappointed, but view it as a turbo-charged card index and it's very good indeed. Be warned, the shareware release limits you to forty records and one or two other features are also disabled.

ST REVIEW COMMENT:

"If ease-of-use is important to you, Jimbase is worth checking out. The graphics display problem holds it back from greater things, but a good effort nonetheless."

0000



The Jimbase control panel adopts a VCR-style approach to navigating files and notes or pictures are easily added to each record.

CALENDAR 63

THE ST CLUB • DISK NO:
UTL.218 • £1.45 • MEMORY: 0.5MB • PUBLIC
DOMAIN • FALCON-COMPATIBLE

**ATARI ST
BUDGET BUY**

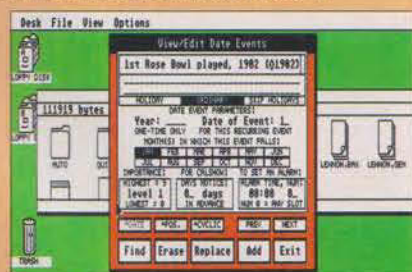
IN BRIEF: Are you one of those people who has trouble remembering your own birthday, let alone other peoples'? Then Calendar 63 is the utility for you. It takes the embarrassment out of a bad memory by forcing your ST to remember all those pointless dates and events for you!

The program is split into two parts – Cal and Cal Show – both of which can function as desk accessories or normal programs. Calendar's secret formula for success lies in its ability to handle four individual types of events: date, recurring, named and cyclic. This allows all sorts of clever tricks such as a prompt on the third week in July or, with the help of an offset, an alert telling you how old your brother is on his next birthday. A level of importance can even be applied to an event, allowing you to filter out your mother-in-law's birthday and any other happenings you'd rather forget!

ST REVIEW COMMENT:

"This is the be-all and end-all of calendar utilities! Naturally, the power of the program also makes it a little more complex to use than its peers, but persevere and you'll wonder how you lived without it!"

00000



Forget about anniversary and birthday dates – just remember to boot your ST with Calendar each morning! And ST Review's release date is the first thing you'll enter, right?

REFBASE

GOODMAN INTERNATIONAL •
DISK NO: GD.1870 • £2.75 • MEMORY:
1MB • PUBLIC DOMAIN • HI-RES ONLY •
FALCON-COMPATIBLE

**ATARI ST
BUDGET BUY**

IN BRIEF: Refbase is another package for dealing exclusively with magazine references. Unlike most programs of this type however, the author hasn't used this as an excuse to write a limited program – this is probably one of the most powerful databases available for the ST!

The power springs mainly from the comprehensive search facilities which include BASIC-like logical operators and wild card support. Perhaps the biggest surprise is the speed at which huge files are searched – quite incredible!

The interface totally ignores GEM, but it's extremely fast and also quite easy to use with on-line help available at most points. A sample file containing references to scientific magazines is included to get you kicked off.

ST REVIEW COMMENT: "Refbase is a hugely powerful – and fast – piece of software and it's a shame its scope is limited to magazines. On the other hand, if you're looking for a database to store magazine references you won't find better than this on any machine."

00000



Flexible searching and sorting and all at tremendous speed – you've hardly clicked the button before it's found the record you want!

DB MASTER ONE

**SOLENT SOFTWARE • DISK NO: UTIL.4 • £2 •
MEMORY: 0.5MB • PUBLIC DOMAIN**

IN BRIEF: *DB Master One* is a bit of a pensioner in the database stakes, being written way back in 1985. Despite its age, however, it's still remarkably usable and could teach a trick or two to most of the more recently designed opposition.

The layout follows the standard menu bar and GEM window convention, with only one database permissible on screen at any time. A good disk-based manual guides you



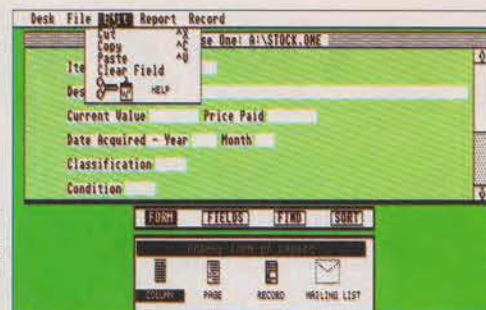
Designing a new record is just a case of pointing and dragging and by using the scroll bars it's possible to create records deeper than the screen.

through the basics and genuinely useful on-line help is available from within the program itself. Also in the package's favour is support for all three ST resolutions and the ability to deal with records larger than the physical screen size (although having to fiddle with scroll bars before editing a field tends to cancel out the benefits).

Perhaps the biggest niggle is the fact that records are designed and edited by two separate programs. In practice, this isn't a major limitation, but it's a hassle you could do without.

ST REVIEW COMMENT: "*DB Master* is a simple package with few vices. It's certainly not the cutting edge of database technology, but with no shareware registrations to pay it could be worth a look."

GGG



Icons and menus control all functions with genuinely helpful on-line help located at the bottom of each menu.

TOP TEN DATABASES

1 FASTBASE 2.4 • NEW AGE PDL • DISK NO: BY NAME • £1.50 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

The ultimate shareware database, *Fastbase 2* features its own built-in structured programming language and support for .IMG graphics. The unregistered version limits the number of records in memory, but at £20 for the full version it's still a bargain!

2 REFBASE • GOODMAN INTERNATIONAL • DISK NO: GD.1870 • £2.75 • MEMORY: 1MB • PUBLIC DOMAIN • HI-RES ONLY • FALCON-COMPATIBLE

A lightning fast database dedicated to storing magazine references. The operation of the program, we are told, mimics *Data Manager Professional* and the search facilities are simple to use and yet very powerful. Comprehensive instructions are included on disk.

3 VIDBASE • CALEDONIA PDL • DISK NO: AU-132 • £2.50 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

Keep a check on that sprawling video collection with this dedicated database. The record format is not flexible, but the program is clever enough to input defaults when fields are left blank – for example, "general" is automatically typed when the "category" field is left blank.

4 CALENDAR 63 • THE ST CLUB • DISK NO: UTI.218 • £1.45 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

Calendar's unambitious title belies its power – this is no ordinary organiser. The power lies in its support for four distinct types of "events" which makes the recording of almost any happening possible, whether it falls on the 25th March, or the fourth week of February every leap year!

5 HYPERLINK DEMO • GOODMAN INTERNATIONAL • DISK NO: GD.1734 • £2.75 • MEMORY: 1MB • BANNERWARE • FALCON-COMPATIBLE

If you want a peek at the database of the future, take a look at *Hyperlink Demo*. The content of the included stack, based around food and wine, isn't inspirational but the presentation is. You can also try your hand at stack building, but you'll need the full version to save anything.

6 FILEMASTER • THE ST CLUB • DISK NO: UTI.244 • £1.45 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

If your needs aren't too demanding you could do a lot worse than check out this nippy GEM database. *Filemaster* doesn't set the world alight with its range of features, but its simplicity makes it very attractive.

7 STD CAT 5 • THE ST CLUB • DISK NO: UTI.240 • £1.45 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

When you've been collecting PD for a few years, it's impossible to keep a track of every single utility you have. *STD Cat* takes the pain out of PD management by storing a database of all the files you have on disk. Just pop the disk in the drive, click the mouse and it's done!

8 ULTIMATE GFA DATABASE • FLOPPYSHOP • DISK NO: LAN.3613 • £2.50 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

UGD provides instant references to almost any article published on GFA programming over the past few years. No search facilities are provided by the GEM shell, but everything is categorised and can be dumped to your printer for a written reference.

9 DISK CAT • TUMBLEVANE PDL • DISK NO: UTA.001 • £1.50 • MEMORY: 0.5MB • SHAREWARE

What *Disk Cat* lacks in looks it makes up for in speed. Each file logged into the disk database has a program name, author name, program type and a 75-character comment attached to it and the database can be searched by any field. *STD Cat* is probably the better package though.

10 DATASTORE • CALEDONIA PDL • DISK NO: AU-106 • £2.50 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Woollysoft's entry into the database market lacks the refinement of its competitors, but it bears a remarkable resemblance to *First Word* in operation which some may view as a point in its favour. Registration (at a very reasonable £6.95) is required to access all of the features.

PD ZONE

GIF TO DESKJET

CALEDONIA PDL • DISK NO: AU-206 • £2.50
• MEMORY: 0.5MB • PUBLIC DOMAIN
• FALCON-COMPATIBLE

IN BRIEF: If you've ever tried printing colour pictures on your mono HP Deskjet, you'll realise what a mess most art packages make of the operation. More often than not, the paper comes out saturated with ink and all detail is lost in a blurry mess. Generally, the more colourful the picture, the worse the result.

Gif To Deskjet was written with the Deskjet specifically in mind, and through the extensive use of dithering and contrast correction techniques, it manages to throw out pictures that will quite simply blow your mind! Even 256-colour GIF files don't seem to pose a problem.

In operation the program has no frills or fancies; the only user-definable option allows you set the background colour to white, thus saving ink. Due to the data compression used you will need a Deskjet Plus or 500 to run the utility.

ST REVIEW COMMENT: "The interface – I use the term loosely – may lack refinement, but the printed results make up for it in every respect. Here's looking forward to the colour version!"

Beautiful 256-colour GIF pictures could soon grace your mono Deskjet with the help of the inspirationally-named GIF to Deskjet.



EXCHANGE RATES

NEW AGE PDL • DISK NO: BUGAM.109 • £2.95 •
MEMORY: 0.5MB • LICENCEWARE •
FALCON-COMPATIBLE



Just click on the flag of the currency you need and type in the amount to convert. The built-in values are close enough to give you a rough idea, or you can enter the exact rate.

Nevertheless the program is very easy to use and conversion is just a case of clicking on the two flags of the countries in question and typing the amount. Pre-programmed rates of exchange were current when the utility was written, but you can alter and save them if needs be.

ST REVIEW COMMENT: "If *Exchange Rates* were a desk accessory it would be an essential purchase, but by the time you've run the program and checked the exchange rate, you might as well have used your pocket calculator. Sad, but true."

IN BRIEF: Is your breakfast incomplete without a peek at the exchange rates? Then you need *Exchange Rates* from Budgie. This program deals with 58 different currencies in all – from US Dollars to Indian Rupees – and is capable of conversion between any two.

OzSoft's roots in games programming are all too evident when you boot up – colour flags and pictures of the globe ooze from every screen, and a merry chip tune plays along in the background (get ready to kill your Falcon's internal speaker!).

ATARI ST PROGRAMMING IN ASSEMBLY

FLOPPYSHOP • DISK NO: LAN.3612 • £2.50 • MEMORY:

1MB • PUBLIC DOMAIN • HARD DISK REQUIRED
• FALCON-COMPATIBLE

ATARI ST BUDGET BUY

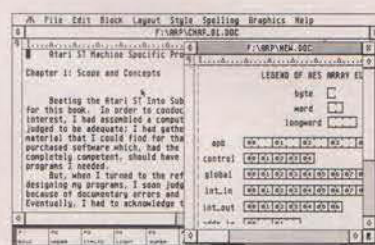
IN BRIEF: Modern versions of BASIC will take you a long way down the programming path, but if you want to make the most of your ST's power, you need to start using assembly language. Fret no longer!

Atari ST Programming in Assembly was written by Robert Arp, but due to the lack of popularity of the ST in North America, it never made it into print. On this disk you will find the ASCII text for the book together with all illustrations and programming examples. Although not designed for the absolute beginner – a little knowledge of the 68000 processor is helpful – it's well written and wholly based around the ST.

The book is supplied in four self-extracting archives and you're looking at a shade under ten megabytes when fully expanded. You may get away with a high density drive or suitably large RAM disk, but a hard disk is by far the best bet...

ST REVIEW COMMENT: "As a guide for the intermediate programmer, this book is as good as anything available commercially. The references to Assempro as opposed to the standard Devpac are annoying, but the changes to source code should only be minor."

From GEM programming to performance testing, *ST Programming in Assembly* covers the lot complete with helpful illustrations.



SAFEMENU

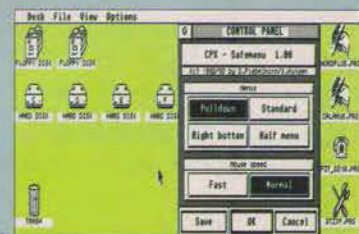
FLOPPYSHOP • DISK NO: UTL.3618 • £2.50
• MEMORY: 0.5MB • PUBLIC DOMAIN •
FALCON-COMPATIBLE

IN BRIEF: It seems ridiculous that out of the four main Graphic User Interfaces (GUI) in use today, no two share the same method of menu activation. Of course, all approaches have their advantages, but most are cancelled out by the sheer frustration of needing to remember which method to use on which machine.

Safemenu solves this problem by allowing your ST to mimic the menu operations of all major GUIs. Four options are provided in all: a Mac style "pulldown" system, "right button" for Amiga fans, "half" which only drops the menu when you move to the top of the menu bar, and "standard", in case you need to disable the utility for any reason.

Installation is a doddle. Just pop the program in your AUTO folder and any changes can then be made on-the-fly through a handy CPX module. *Safemenu* also doubles as a mouse accelerator if you haven't got Atari's Maccel.

ST REVIEW COMMENT: "If you use more than one machine, *Safemenu* is essential. Almost all GEM applications are compatible and at under 3K you've got no complaints on the memory front."



Any changes to configuration can be made as you work, which is handy in case any applications misbehave.

JC CALENDAR

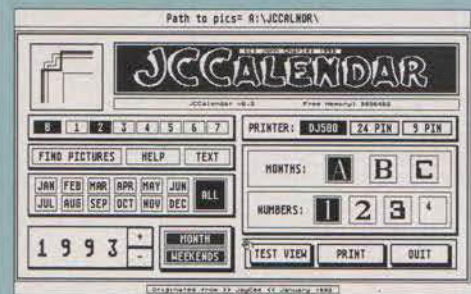
GOODMAN INTERNATIONAL • DISK NO: GD1887 • £2.75 • MEMORY: 0.5MB • PUBLIC DOMAIN • HI-RES ONLY • FALCON-COMPATIBLE

IN BRIEF: This nifty utility takes the pain out of designing your company or personal calendar. The printed layout is of the standard "picture at the top, month at the bottom" variety and each page can be assigned its very own compressed Degas picture. When you are satisfied with the preview, the whole thing can be squirted directly to your eagerly awaiting printer.

A plush GEM menu runs the whole program and with on-line help only a mouse click away, it's extremely easy to get up and running. Printers currently supported include the ever popular HP Deskjet 500 and almost any model of dot matrix, providing you're prepared to enter a few control codes.

ST REVIEW COMMENT: "The output may not be up to professional standards, but *JC Calendar* is beautifully presented and very quick in operation. If the idea of a custom calendar appeals, you'll be a fool to miss this one!"

★★★★



Design your very own personal calendar with a few mouse clicks. The printed results are pretty good, but not up to professional standards.

ATARI IMAGE MANAGER 3

ATARI ST REVIEW
BUDGET BUY

FLOPPYSHOP • DISK NO: ART.3488 • £5.00 (ALL IN) • MEMORY: 1MB • PUBLIC DOMAIN • FALCON-ENHANCED

IN BRIEF: The *Atari Image Manager* will be familiar to anyone keeping an eye on the public domain over the past few years. From humble beginnings, it has grown into a package capable of knocking the socks off just about everything else in the sparsely populated ST image processing market.

Version 3 adds a whole host of extras to the already bulging feature list, amongst which are a "cascading" menu system and support for the 16-colour, hi-res modes offered by the TT and Falcon (although still no joy on the 256-colour front). Windows can now be iconified to avoid cluttered screens and import drivers have been beefed up to include IFF and GEM IMG formats.

Although the package itself is public domain, full printed instructions will set you back a few squids, or you can always plump for docs from an older version which are still available in the public domain.

ST REVIEW COMMENT: "The *Atari Image Manager* just gets better and better. Admittedly it takes some experimentation to achieve acceptable results, but once you know what you are doing, the sky's the limit!"

★★★★★

You can just about get away with running Atari Image Manager on an ST in 16 colours, but the improved Falcon resolutions make things much more comfortable.



TOP TEN UTILITIES

1 ATARI IMAGE MANAGER 3 • FLOPPYSHOP • DISK NO: ART.3488 • £5.00 (ALL IN) • MEMORY: 1MB • PUBLIC DOMAIN • FALCON-ENHANCED

The definitive Atari image processing software. TT/Falcon screen resolutions are now better supported and a new menu system makes the program far more pleasing to use. The macro language is as powerful as ever and whole scripts of commands can be saved for use at a later date.

2 ATARI ST PROGRAMMING IN ASSEMBLY • FLOPPYSHOP • DISK NO: LAN.3612 • £2.50 • MEMORY: 1MB • PUBLIC DOMAIN • HARD DISK REQUIRED • FALCON-COMPATIBLE

A complete book on assembly language programming packed onto a single disk. The text is aimed primarily at those who have a basic understanding of the 68000 processor, but the author assumes no previous programming experience on the ST. Topics covered include desk accessory programming and reverse engineering!

3 PROBE 2 • MERLIN PD • DISK NO: MPD.1265 • 99P • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Twiddle with the deepest recesses of your ST courtesy of Breakpoint Software's *Probe 2*. Once installed, you can search memory for music, graphics and sound samples, with all results easily saved to disk in a number of popular formats.

4 SAFEMENU • FLOPPYSHOP • DISK NO: UTL.3618 • £2.50 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

Transform your ST's personality with this AUTO/CPX combination. All major operating systems are catered for – from the Mac's stylish "pulldown" approach to the Amiga's quirky right button menus – and most GEM applications are willing to play ball.

5 GIF TO DESKJET • CALEDONIA PDL • DISK NO: AU-206 • £2.50 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

Find out what your DeskJet Plus or 500 is really capable of with this superb utility from Rufus Developments. The contrast and shading of the pictures produced are stunning, and the more colours the better! Two colour GIF files are included on disk to get you started.

6 ALGEBRA • GOODMAN INTERNATIONAL • DISK NO: 1888 • £2.75 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Two intermediate programs to improve your problem-solving skills through the use of linear equations. Each lesson is split into three parts, the first describing the problem in hand, the second running you through an example and the third finally throwing you in at the deep end to have a go yourself.

7 KWIKVIEW • FLOPPYSHOP • DISK NO: UTL.3620 • £2.50 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

At no time is the border around the ST's screen more annoying than when you are trying to view an instruction file. *Kwikview* cons your machine into putting text into the top and bottom border, giving a full 32 lines of display as opposed to the usual 25. It's damn fast too!

8 TACS • THE ST CLUB • DISK NO: DMG.19 • £1.45 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Possibly the best archiver shell ever written. Instead of resorting to a dull command line, *TACS* emulates the ST's desktop environment with windows, drive icons and menus controlling all operations. Double clicking on an archive opens a window showing all contained files – it's as simple as that!

9 DISK FIX 2 • THE ST CLUB • DISK NO: UTL.207 • £1.45 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

This little program claims to recover files from trashed hard or floppy disks. How successful it is remains a mystery, but one satisfied user has added his story to the documentation file, so it might be worth a try.

10 HANDY PLUS • MERLIN PD • DISK NO: MPD.1210 • 99P • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

Is your ST at risk from prying eyes? Then password protect it with the *Handy Plus* desk accessory. A swift click of the button and it will be impossible to use until the correct password is entered (we'll just have to hope they don't know how to reset the machine).

CUT OUT 'N' SEND ORDER COUPONS

*Fancy some PD?
Don't waste
money, paper
and time filling
out reams of
paper. Just fill
out the appropri-
ate coupons and
send them to the
Library shown,
along with your
payment.
Another exclusive
ST Review
reader service.*

PLEASE SEND ME
THE DISK/S
TICKED BELOW:-

FROM
The ST Club,
2 Broadway,
Nottingham
NG1 1PS

ATARI
ST
REVIEW

NAME

ADDRESS

- ☐ CALENDAR 63 £1.45
☐ FILEMASTER £1.45

PLEASE SEND ME
THE DISK/S
TICKED BELOW:-

FROM
Merlin PD,
11 Grange Close,
Minchinhampton,
Stroud,
GL6 9DE

ATARI
ST
REVIEW

NAME

ADDRESS

- ☐ DROP DOWN WORDS £2.95
☐ GALACTIC FRUIT BOWL 99P

PLEASE SEND ME
THE DISK/S
TICKED BELOW:-

FROM
Floppyshop ST,
PO Box 273, Aberdeen,
AB9 8SJ

ATARI
ST
REVIEW

NAME

ADDRESS

- ☐ SAFEMENU £2.50
☐ PROG. IN ASSEMBLY £2.50
☐ IMAGE MANAGER 3 £5.00
☐ GFA DATABASE £2.50
☐ JIMBASE £2.50

PLEASE SEND ME
THE DISK/S
TICKED BELOW:-

FROM
Caledonia PDL,
250 Oldtown Road,
Hilton,
Inverness,
IV2 4PT

ATARI
ST
REVIEW

NAME

ADDRESS

- ☐ CHAOS £2.50
☐ GIF TO DESKJET £2.50

PLEASE SEND ME
THE DISK/S
TICKED BELOW:-

FROM
Goodman Enterprises,
16 Conrad Close,
Meir Hay Estate,
Longton, Stoke-on-Trent,
Staffs, ST3 1SW

ATARI
ST
REVIEW

NAME

ADDRESS

- ☐ JC CALENDAR £2.75
☐ REFBASE £2.75

PLEASE SEND ME
THE DISK/S
TICKED BELOW:-

FROM
Tumblevane PDL,
6 West Road,
Emsworth,
Hampshire,
PO10 7JT

ATARI
ST
REVIEW

NAME

ADDRESS

- ☐ FATEMASTER £1.50
☐ DEAD OR ALIVE £3.00

PLEASE SEND ME
THE DISK/S
TICKED BELOW:-

FROM
New Age PDL,
30 Anderson Estate,
Lower Road,
Hockley, Essex,
SS5 5NG

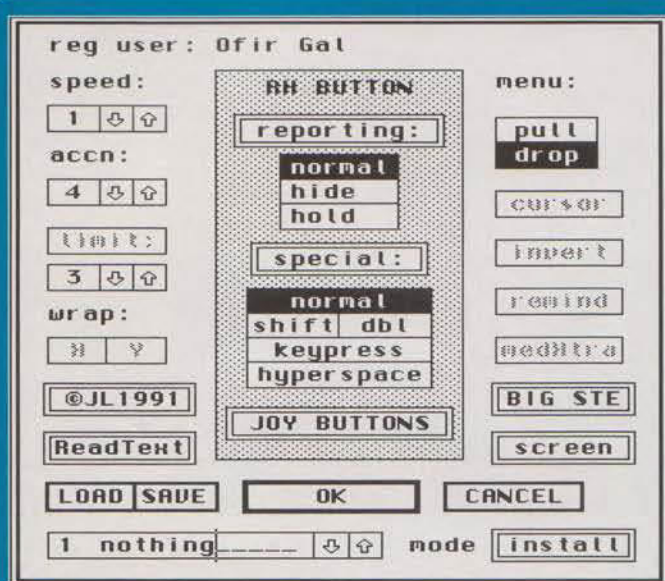
ATARI
ST
REVIEW

NAME

ADDRESS

- ☐ EXCHANGE RATES £2.95

ST BUYER



Can Mouse Tricks 2 really supercharge your favourite rodent? Find out on page 86.



Learn how to set up Freeze Dried Terminal in our brand new Comms Coaching section on page 81...



Using a RAMdisk speeds up disk-copying and access to files. Want to know more? Go directly to page 74!

Time for the tutorials, short reviews and your letters.

The last part in the Problem Solved series clues you in to RAMdisks. What are they? Can using them make your life easier? Andrew Wright explains on page 74.

Ofir Gal's HiSoft BASIC tutorials continue on page 77 with part two of programming a desk accessory.

GDOS is used by many text-based programs. Ever wondered how it works and how to set up the infamous ASSIGN.SYS file? Find out on page 82.

Another new series starts this issue – Comms Coaching. Each month we'll be showing you how to set up one of the most popular comms programs. This time it's Freeze Dried Terminal on page 81.

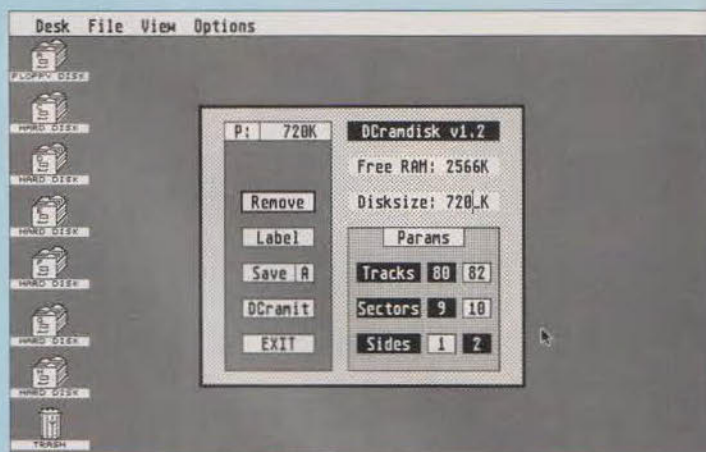
Enjoyed Write ON last month? Good – there's a follow-up tutorial on page 84 covering some of the more awkward bits!

There's a couple of short reviews on Mouse Tricks 2 and Address and all the regulars – Ask The Experts, Learn The Lingo, Readers' Letters and the Blitter End...

The Blues is your section. Got a problem that needs solving? Want to express a point of view? Drop us a line and you never know – it could be your name at the end of a letter next issue.

Blue is definitely too passive a colour – maybe we should change it to red...

Andrew Wright shows you
how to make the most of
your megs with a look at the
various types of
RAMdisks on offer...



DC RAMIT (part of the DC Utilities) is a special kind of RAMdisk that lets you configure it to look exactly like a floppy disk - you can then duplicate multiple copies of disks very quickly.

RAMPING

Memory upgrades can make a vast difference to program speed and cut down tedious disk accesses. It really is a case of the more megabytes the merrier, especially if you're using your ST for serious applications like DTP, music or programming.

Adding the cheapest memory upgrade you can find isn't always the answer though. It is important to plan ahead so that you don't waste your money buying a half megabyte upgrade only to discover you need even more memory a few months later.

If you own a half megabyte machine, a whole megabyte might sound like a lot - you'll be able to run programs like *Calamus*, *Arabesque* and *Silhouette*, not to mention the latest coin-op conversions like *Streetfighter II*. A quick flick through the games pages reveals that about half of all the games released this year need a full megabyte to run in.

The problem is that megabytes seem to be shrinking! Programs like DA's *Vector* and *PageStream* need at least two megabytes while many 1040 owners have discovered that while big programs will run, all desk accessories and AUTO folder programs have to be disabled to do so. The only answer is to upgrade to two or more megabytes.

Putting this much memory in an ST may seem wasteful to some, especially when you might only need it to run the odd memory-hungry program. In fact you can make use of every single extra byte, even when you're running a simple word processor. Not only can you add

more accessories (you can even go beyond the limit of six using programs such as *DCStuffer* or *MultiDesk*), but you can install printer spoolers, disk caches and RAMdisks to really turbocharge your work environment.

WHAT IS A RAMDISK?

A RAMdisk is created using a special program that sets aside part of your ST's Random Access Memory (RAM), which is then able to be used as if it were an extra disk drive. The ST's RAM is volatile memory which means that when the machine is switched off, the contents of the RAMdisk are lost. The good thing about this is that you can't possibly do any harm to your ST by setting up a RAMdisk - it's only temporary storage and you can get all your memory back by turning the ST off and on again. If you have a

half megabyte ST, in other words a 520 ST/STE that hasn't been upgraded, there is only around 350K of RAM free anyway, so setting up a RAMdisk isn't that much use, except perhaps for file copying.

With a megabyte or more of memory, as in a standard 1040 ST/STE, you can set up a 500K RAMdisk and still run any programs you could run on a half megabyte model. The benefits are really felt when you have two megabytes or more. You can then set up a RAMdisk of 1, 2 or even 3 megabytes, enough to hold several programs and accompanying data files, and still run your favourite programs as normal.

SUPERFAST ST!

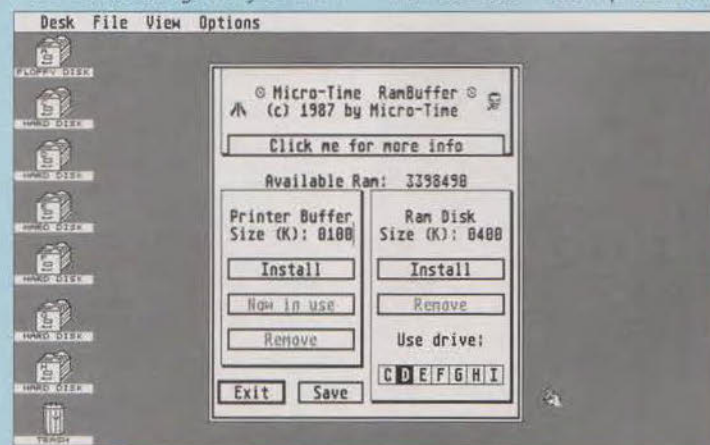
As a RAMdisk is an area of the ST's internal memory, file transfer to and from it is fast - much quicker than

even the fastest hard drive. There are all sorts of situations where this can save time. Editing images and sound files are two good examples - if you need to cut bits from several different MIDI songs or perhaps alter scanned colour images, then a RAMdisk will be the quickest way of doing it. The program can be loaded from disk in the usual way and the data files, samples or images stored in a RAMdisk.

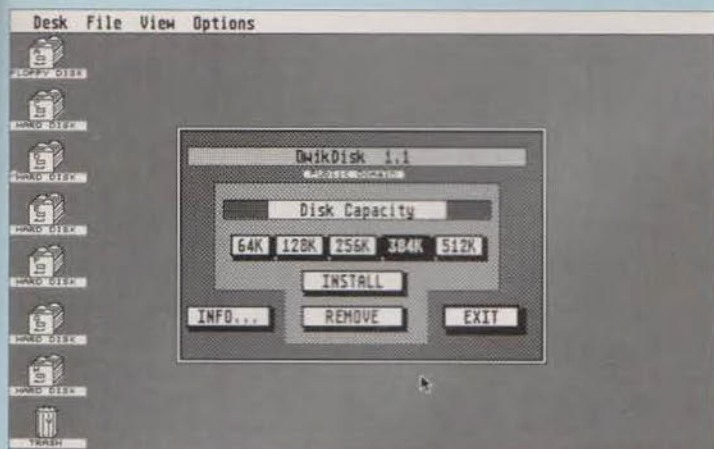
Whether you have a hard disk or a floppy, using a RAMdisk to load often-accessed files or program overlays reduces wear and tear on the drive heads and is much quicker too. Programs like *Timeworks* use program overlays - whenever you switch from frame mode to text mode, for example, there is a long delay as the program accesses the drive. In fact it is loading an overlay and the tedium can be relieved by using a hard drive - or virtually eliminated by using a RAMdisk.

If you do a lot of file copying and only have a single floppy drive, a RAMdisk can change your life. When you copy a set of files from one floppy drive to another, you have to swap disks repeatedly as each file is copied across one at a time. With a RAMdisk installed, all the files are copied from the first floppy disk into the RAMdisk in one go and then, when the second floppy disk is inserted, copied from the RAMdisk onto the floppy again.

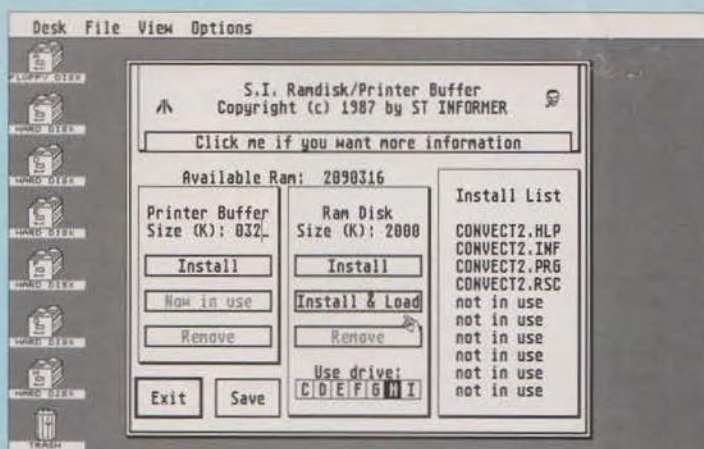
There are some disadvantages, of course. Firstly, you will have less memory available to run programs though if you get the balance right between RAMdisk size and available



RAMBUFFER is a cut-down version of SIRAM and includes a printer spooler.

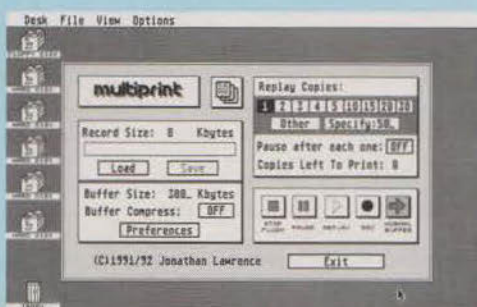


QWIKDISK is a PD RAMdisk with very few bells and whistles.



SIRAM, a very neat accessory RAMdisk that lets you specify which files you want to load and lists them on screen.

IT UP



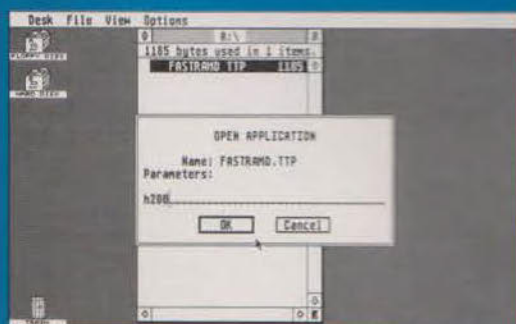
The ST Club's commercial utility, Multiprint, is one of the best printer spoolers around.

STEP BY STEP

INSTALLING A RAMDISK

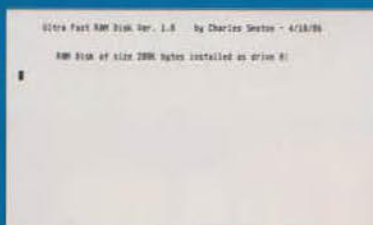
One of the best ways of using a RAMdisk is for copying a large number of files from one disk to another. Let's look at it step by step using FASTRAMD, a simple and popular RAMdisk utility widely available from public domain libraries.

As an example, let's assume we want to retrieve a number of important data files from a floppy disk and store them all on a backup disk.



1 First, boot up the ST and double click on the RAMdisk program, in this case FASTRAMD.TTP. A dialogue box will appear. Enter the drive letter, followed by the required

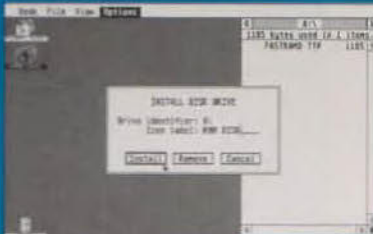
size. You must give it an unused drive letter from C onwards. Floppy drive users can go for C - I'll go for H as my hard drive uses those in between. Size will depend on your available RAM but in this case we'll enter 200 as that's all that's needed and it will work on a 520 (with a 1040 you could specify 700K). Be sure to leave at least 100K for the system to use, otherwise you'll run into problems.



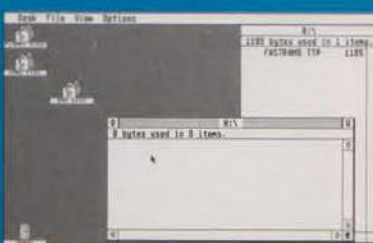
2 Hit Return and the RAMdisk installs itself. You should see a quick message on screen confirming your selected drive and size.



3 Now you're back on the desktop, it's time to install a new icon. Select an existing drive icon (it doesn't matter which) and select Install Disk Drive from the Options menu.



4 Add the details, click on Install...



5 ...and the icon appears. Double clicking on it reveals a window onto your new "drive". All that remains is to save the desktop configuration so that you don't have to reinstall the icon every time you boot up.

RAM, you'll never notice this.

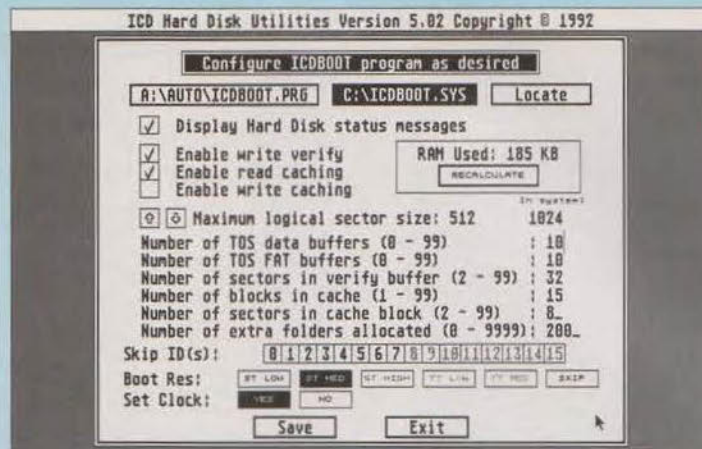
Secondly, and perhaps more importantly, if you use the RAMdisk to store data files, you must remember to save the contents before you switch the machine off or the whole lot will disappear. Fate can have a hand here too. If the program you are using crashes, you might lose the RAMdisk's contents, unless it happens to be one of the reset-proof variety. Some crashes are so horrendous that only a cold boot will restore normal service – in this case, no matter what type of RAMdisk you've used, the contents will have evaporated...

TYPES OF RAMDISK

There are scores of RAMdisks available and most of them are public domain or shareware varieties. One of the first commercial utilities on the ST was *K-Ram*, a basic RAMdisk from Kuma though many are available now including the Codehead *RAMdisk* (part of the Codehead utilities disk).

The most common kind are the AUTO folder variety although there are plenty of desk accessory versions too. Others can be found built into certain utilities like *Harlekin* or as simple stand-alone programs. The latter are very handy as no reboot is usually necessary, if the need for a RAMdisk suddenly arises.

RAMdisks can also be divided into functional types. Reset-proof RAMdisks are particularly handy as



Setting the ICD disk cache supplied with ICD hard drives.

they survive a warm reset – either by pressing the little panic button at the back of the ST or Control-Alternate-Delete on TOS 1.4 and later machines. When they are identified as drive C on floppy based systems, they can even be used to load accessories – the AUTO folder on drive A controls the boot sequence and any accessories placed in RAMdisk C are loaded so cutting down booting time.

Auto-loading is another handy feature, present in programs such as *TurboRam*. A second program, or occasionally the RAMdisk itself, will look for a certain folder on the boot drive and automatically copy the contents to the RAMdisk. For floppy owners this can save a lot of time – you can boot up your machine and

make a cup of coffee, safe in the knowledge that when you come back, your program is loaded into the RAMdisk and ready to run in an instant.

There are also compressing RAMdisks like the famous *Maxidisk* that actually compress files on the fly as they are copied into the RAMdisk. On average, up to a third more effective space becomes available, which is useful if memory is tight.

Removable RAMdisks are useful too – accessory versions usually offer this facility – as they save you rebooting once you've used them. For example, you might want to quickly copy a dozen files from one disk to another by installing a RAMdisk. Being able to remove it afterwards lets you get straight back to work.

DISK CACHES

A disk cache is similar to a RAMdisk in that it is an area of memory set aside for a different purpose – in this case to improve floppy or hard disk access. It achieves this by reading more sectors from the disk than it needs to, on the assumption that the ensuing sectors are most likely to be requested next. Write caching works in a similar way, except in reverse.

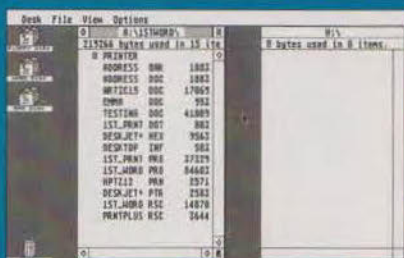
Caches are fiddly things to get right – set aside too much RAM and the system can actually slow down, while not enough produces little or no benefit at all. There are several cache programs available – floppy disk users might like to try *Acache*, which works on drive A only, while one of the most popular for hard drive owners is *Cold Hard Cache*, now at version 4. Both can speed up disk accesses by between 10 and 40 per cent.

PRINTER SPOOLERS

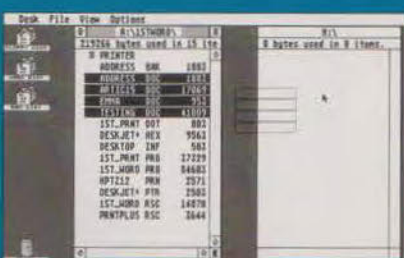
Printer spoolers act in the same way as RAMdisks, allocating a part of the ST's memory for print output. The advantage of a printer spooler is that when you press the print button to output a long document, instead of watching the "busy bee" icon for several minutes, you can continue with your work. The printer spooler releases data to the printer as fast as the printer can handle it.

HOW TO USE A RAMDISK

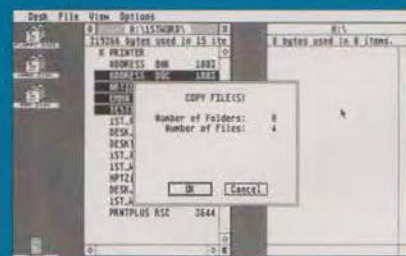
Having followed the installation procedure, the next stage is to select the files from drive A (or B) which we want to copy and drag them across to the RAMdisk, in this case drive H.



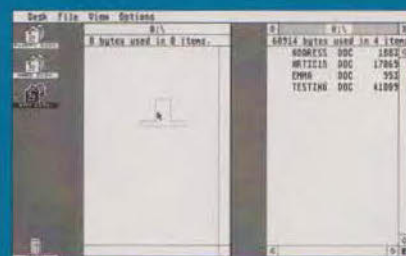
- 1 Put the source floppy disk in the drive and open a window to reveal its contents.



2 Select the files you want to copy – in this case all the .DOC files – and drag them over into the RAMdisk window.



3 Once the copying has been carried out (you may have to click on OK, depending whether you have confirmation set to on or off in the Set Preferences dialogue) the files are all safely in the RAMdisk.



4 Now put the destination disk in the drive. You can format it if necessary, in the normal way. Select all the files in the RAMdisk and drag them over into the floppy drive window. Another quicker alternative, if you want to copy all the files in the

RAMdisk, is to drag the RAMdisk icon (H) across into the open window of A.

Try it - you've just discovered how useful a RAMdisk can be. I'll let you work out how long the copying would have taken in the normal way had there been twenty files instead!

WORKING WITH HISOFT BASIC

The disk utility program we started last issue was a far cry from a professional-looking desk accessory – the display was limited to text displayed on screen via the *PRINT* command. Developing a GEM program this way is useful as such a program can be easily error-traced and altered.

Now it's time to convert the program to a GEM program. A resource file is found on this month's cover disk which you should copy to your work disk along with the files *FREE.BH* and *HGT.BAS*. The BASIC header (BH) file contains the object names and values needed for accessing the resource file. The HGT file contains a selection of routines based on the HiSoft GEM Toolbox. These make the job of manipulating buttons and text objects much easier.

GEMMING IT UP

The AES library must be included in

the program as well as the HGT source, resource and header files. The start-up code is shown in listing 1 and the BIOS and GEMDOS libraries are needed for the disk routines discussed last month.

Don't run the program just yet as it won't do anything. Add the free memory and disk statistics sub routines as well as a *rsrc_free* call to free the system resources.

The results of the routines must then be converted into text strings and placed in the corresponding objects. This is demonstrated in listing 2. Object names are found in *FREE.BH* which was created using *WERCS*.

Doing the same with the disk information is a little more involved. There are 16 possible drives and each one has three objects allocated to it. The first simply contains the drive letter while the other two show free and total disk space. When the resource file was created, these objects were

Ofir Gal continues programming his Disk Utility desk accessory. This month, completing the GEM program...

arranged in a specific order to make the task of placing the information in them as simple as possible. This activates an additional routine that enables or disables the drive letter objects according to the drive status.

A disabled object appears in grey and cannot be clicked on or edited. The only difficulty with this routine is that the drive letter objects are three objects apart from each other.

A look in the header file reveals this; the drive letter objects are named *drivea*, *driveb*, *drivec* and so on. You can clearly see how each is followed by the two free and total objects.

Enabling and disabling the objects is easy thanks to two new routines included in the HGT file. These are called *disable* and *enable* and are passed the object number or name as a parameter. Listing 3 shows this based on a similar routine from last month's tutorial.

Although all objects are enabled to start with, it's best to check and then enable drives each time the accessory is called. While it is still a standard GEM program, when we convert it to an accessory the drive status may change while the accessory is active. For example, the user may install a

Listing 2

```
SUB freeram
  STATIC system,a$

  'get free RAM
  system=FREE(-1)\1024

  'create text for object
  a$=STR$(system)+"K free RAM"

  'place text in object
  sette_ptext freemembox,a$
END SUB
```

RAMdisk, so the object which was previously disabled will now have to be enabled.

It would make perfect sense to call a sub-routine to check the disk space for every active drive after enabling the drive letter. The drive number is passed to the sub-routine *drvstats* and is based on last month's routine for checking the drive statistics.

To stay on the safe side, if a drive is not available enter a null string into the disk free and total space objects. A null string is simply a text string containing absolutely nothing – not even spaces. Listing 4 shows the previous sub-routine *drivable* with addi-

Listing 1

```
'GEM initialise code
DEFINT a-z
LIBRARY "gemaes","gemdos","bios"

'load toolbox routines
'$include hgt.bas

'load header file
'$include free.bh

'release unused memory
'$option k20

'do not open a window
'$option y

'load resource file
IF FNrsrc_load("FREE.RSC")=0 THEN
  a$="[3][ Resource file not found. ][Abort]"
  dum=FNform_alert(1,a$)
  SYSTEM
END IF

'get memory address of the dialogue
'box form1 and centre it
dum=FNrsrc_gaddr(0,form1,tree&)
form_center tree&,x,y,w,h
```

Listing 3

```
'a routine to enable/disable drive letter objects
SUB drivable
  STATIC i,drvmap&
  FOR i=0 to 15
    drvmap&=2^i
    IF FNdrvmap AND drvmap& THEN
      enable drivea+i*3
    ELSE
      disable drivea+i*3
    END IF
  NEXT i
END SUB
```


Listing 4

```
'a modified drivable routine
SUB drivable
STATIC i,drvmap&,drvobject
FOR i=0 to 15
  drvmap&=2^i
  drvobject=drivea+i*3
  IF FNdrvmap AND drvmap& THEN
    enable drvobject
    drvstats i+1,drvobject
  ELSE
    disable drvobject
    sette_ptext drvobject+1,""
    sette_ptext drvobject+2,""
  END IF
NEXT i
END SUB
```

tional calls to sub-routine *drvstats* if a drive is available. Otherwise a null string is placed in the corresponding objects.

Next, the actual drive statistics sub-routine which requires little modification from last month. As with all GEM dialogue output, the *PRINT* routine must be replaced with a *sette_ptext* call. The sub-routine receives the drive number and drive letter object as parameters, fetches the information from TOS and places the values in the appropriate objects.

Notice that while in the BIOS, drives are numbered 0 to 15 while GEMDOS drives are numbered 1 to 16. The array *dinf&()* is now local to the sub-routine and is made up of four long integers. Sub-routine *drvstats* is shown in Listing 5.

PROGRAM STRUCTURE

Now that we have all the routines we need, the actual program has to be structured. In its simplest version, the program should initialise, check all drives and memory, display the dialogue box and wait for the user to press the exit button. Listing 6 shows the form handling routines that should follow the *form_center* call in Listing 1.

This version of the program simply quits without paying attention to which exit button is pressed. You should now be able to run the program and verify that everything

works as it should. If the program fails to find the resource file, make sure the paths specified in *FNrsrc_load* and included files are correct.

VIRTUAL DRIVES

There is still a small but annoying problem with the program which you will notice if you have a single floppy system. The program insists that disk B is inserted into drive A the first time it runs but if run again it asks for disk A to be placed in drive A. This is because *FNdrvmap* always acknowledges the existence of drive B even if it doesn't exist!

There is a good reason for this. It is possible to have a drive B icon on the desktop which can be used to simulate a physical disk drive B, useful for copying files from disk to disk on a

Listing 8

```
'modified routine to eliminate checking virtual floppy B
SUB drivable
STATIC i,drvmap&,drvobject
FOR i=0 to 15
  drvmap&=2^i
  drvobject=drivea+i*3
  DEF SEG 0

  'if checking drive B and system has less than 2 floppy drives
  'then disable objects
  IF i=1 AND PEEK(&H4A6)<2 THEN
    disable drvobject
    sette_ptext drvobject+1,""
    sette_ptext drvobject+2,""
  ELSEIF FNdrvmap AND drvmap& THEN
    enable drvobject
    drvstats i+1,drvobject
  ELSE
    disable drvobject
    sette_ptext drvobject+1,""
    sette_ptext drvobject+2,""
  END IF
NEXT i
END SUB
```

single floppy system. To stop the program checking drive B – unnecessarily, we must dig deep into the computer's memory. Unfortunately TOS does not provide a simple call to check for physical drives, and consequently a peek into the system is required.

BASIC allows for direct memory access via the *PEEK* function. This takes one parameter – the memory address – and returns the contents of that address. Before calling *PEEK*, a command defining the chunk of memory is used although this is no longer necessary in HiSoft BASIC 2.

DEF SEG 0 defines the size of memory to peek at – in this case a word, or two bytes. The actual address to look at has been defined by Atari up to &H4A6.

There are three possible return values: 0 if no floppy drives are found; 1 if one is found; 2 if both A and B are valid. Listing 7 is a simple example of a system *PEEK*.

We can safely assume that all systems will have at least drive A active and so need only verify the existence of drive B. If it is not a physical drive, the program should disable its drive letter and not check its statistics.

Sub-routine *drivable* will now have to allow for this before trying to obtain information about the disk. The new version is found in listing 8.

The sub-routine is now structured to skip virtual floppy B with the help of the *IF...ELSEIF...ELSE* combination.

USER INTERACTION

Allowing the user to interact with a program enhances the 'feel' and makes for friendlier use. There are many ways to achieve this, the first being to enable the *Test All* button which will become even more useful when the program is finally convert-

Listing 6

```
'code to display and interact with dialogue
'display the busy bee
MOUSE 2

'call the memory check sub
CALL freemem

'call the drive info subs
CALL drivable

'finished checking - normal mouse
MOUSE 0

form_dial 0,0,0,0,0,x,y,w,h
junk=FNobjc_draw(tree&,0,10,x,y,w,h)
but=FNform_do(tree&,0)
form_dial 3,0,0,0,0,x,y,w,h

junk=FNrsrc_free
SYSTEM
```

Listing 5

```
'a routine to obtain drive info
SUB drvstats(drv,drvobject)
LOCAL dinf&(3)
STATIC cluster,free&,total&

'the actual GEMDOS call
dfree dinf&(),drv
cluster=dinf&(2)*dinf&(3)\1024
free&=dinf&(0)*cluster
total&=dinf&(1)*cluster
sette_ptext drvobject+1,STR$(free&)+"k"
sette_ptext drvobject+2,STR$(total&)+"k"
END SUB
```

Listing 7

```
'check how many floppy drives are connected
'in HiSoft BASIC V1.3
DEF SEG 0
flops=PEEK(&H4A6)
PRINT flops

'in HiSoft BASIC V2
flops=SPEEKW(&H4A6)
PRINT flops
```


Listing 9

```
'main loop
CALL freemem
CALL drivable
form_dial 0,0,0,0,0,x,y,w,h
DO
  junk=FNobjc_draw(tree&,0,10,x,y,w,h)
  but=FNform_do(tree&,0)
  MOUSE 2

'if Test ALL button was selected
  IF but=test_but THEN

'do the checks
  CALL freemem
  CALL drivable
END IF
MOUSE 0

'always deselect the button
deselect but

'loop until the exit button is selected
LOOP UNTIL but=exit_but
form_dial 3,0,0,0,0,x,y,w,h

junk=FNsrc_free
SYSTEM
```

ed to a desk accessory. The main routine must now reside in a loop awaiting user action and can be used in several ways. While you can check free RAM at speed, checking all disks is rather slow.

There is no point for the accessory to check free space each time it is selected and since a desk accessory is running constantly, regardless of user action, the programming should be

approached differently – more about this later.

You should now run the program and try it, making sure that it enables and disables the correct objects and that it produces the correct results. Try clicking on the drive letters which you will find are selectable buttons. They do nothing at the moment as no functions have been assigned to them.

How about checking individual drives? Most of the work is done – *drvstats* takes the drive in question and the drive object as parameters. Passing it the drive object is the easy bit – it's the object the user clicked on and is returned by *FNform_do*. A new sub-routine *onedrv* is required to do the necessary conversion from the object to the actual drive number. The sub-routine *onedrv* is shown in Listing 10 along with the modified main loop that now uses *SELECT CASE* instead of *IF* as the former lends itself better to this situation.

NEXT MONTH

The program is now complete and ready for conversion to a desk accessory. This will require the use of the gemacc library which instructs the compiler to produce an accessory instead of a standard GEM program.

There are some difficulties involved in producing a stable and reliable desk accessory but, luckily, most of the hard work is down to the compiler. In the mean time, if you have any questions or requests, please write in or join our conference on CIX.

Listing 10

```
'main loop and additional sub
'to enable single drive checks
form_dial 0,0,0,0,0,x,y,w,h
DO
  junk=FNobjc_draw(tree&,0,10,x,y,w,h)
  but=FNform_do(tree&,0)
  MOUSE 2
  SELECT CASE but

'if Test ALL button was selected
  CASE test_but

'do the checks
  CALL freemem
  CALL drivable

'any of the drive buttons
  CASE drivea TO drivep

'call onedrv with object as parameter
  onedrv but
END SELECT
MOUSE 0

'always deselect the button
deselect but

'loop until the exit button is selected
LOOP UNTIL but=exit_but
form_dial 3,0,0,0,0,x,y,w,h

junk=FNsrc_free
SYSTEM

SUB onedrv(drvobject)
STATIC drv,tmp
tmp=drvobject-drivea
drv=tmp\3

'call drvstats with parameters
drvstats drv+1,drvobject
END SUB
```

NEW COMMANDS

PEEK - A BASIC function used for reading memory directly. It takes the memory address as a parameter and returns its contents. This function is only required when reading in supervisor mode. To read user memory, it's better (and faster) to use **PEEKb**, **PEEKw** and **PEEL**. HiSoft BASIC 2 also supports **SPEEKb**, **SPEEKw** and **SPEEL** for supervisor mode memory access.

DEF SEG - This statement defines the memory segment to peek at. Its format is **DEF SEG=x**; if *x* is zero, the memory segment is a word (2 bytes) if the address is a word. If the address is a long, so is the segment. To peek a byte, *x* should be non-zero.

Free Accessory

11K free RAM

	Free	Total		Free	Total
A	174k	711k	I		
B			J		
C	10171k	15562k	K		
D	2861k	15562k	L		
E	13332k	15562k	M		
F	3889k	15561k	N		
G			O		
H			P		

Exit

Test All

The program at work. A dialogue-based program can usually be converted into a desk accessory – see next month!

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COMMS COACHING

Without it, you can still call bulletin boards but won't be able to transfer files.

Yet another in the
"everything you
wanted to know
but couldn't find
someone to ask"
series of articles.

If you're all
sitting comfort-
ably then Ofir Gal
will begin...

A USER'S

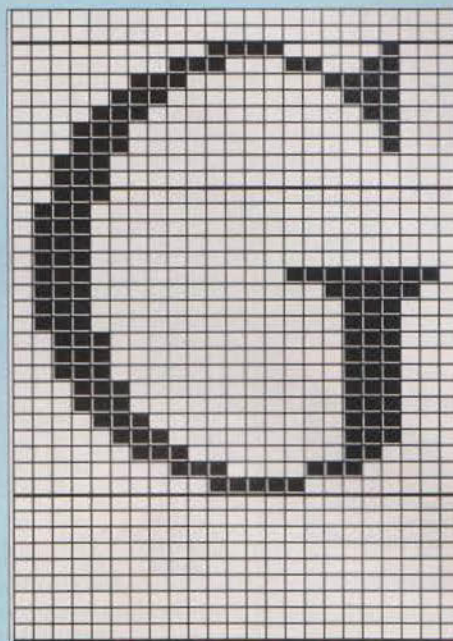
The Graphical Device Operating System, or GDOS for short, has been a constant source of frustration to all of us, experienced or otherwise. Yet GDOS is a simple system and capable of doing a decent job. What has been lacking is a proper manual – a decent installation guide and explanation of its uses and limitations.

Various attempts have been made to improve GDOS. Codehead produced *G+Plus*, *AMCGDOS* has proved popular in Germany and even *NVDI* has a built-in GDOS replacement. While such programs offer all the features of GDOS with a few extras, what exactly is GDOS and, more importantly, how do you set it up?

READING THE RECIPE

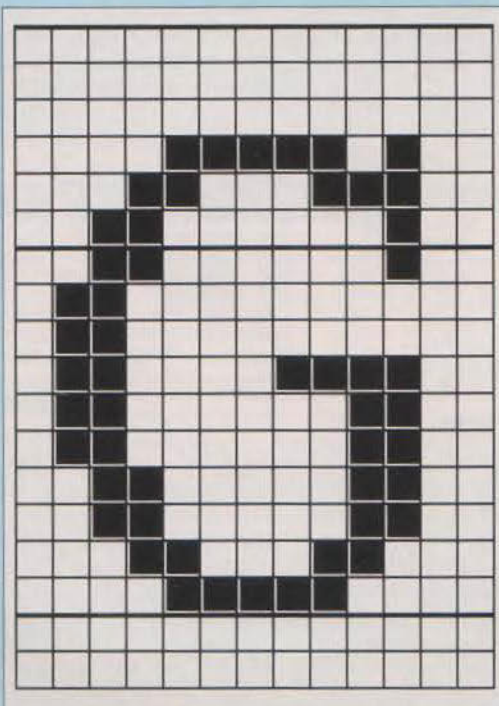
GDOS provides the ST with a graphical device system. In layman's terms, this means that a selection of fonts and graphics can be displayed on screen and output to a variety of printers. For some inexplicable reason, GDOS was excluded from the ST's ROMs in a last minute decision and supplied on disk instead.

With GDOS installed, programs can use fonts other than the standard system variety and a printout can utilise fonts other than those built into the printer. There is now a wide



This character is from the *ATTR18.FNT* designed for hi-res display.

The printer equivalent of the *ATTR18.FNT* screen font. This is also an 18-point Times Roman font but is intended for use with an Epson FX80 printer.



selection of GDOS fonts available via public domain libraries and programs such as *FontKit Plus* enable you to create new fonts or edit existing ones. With GDOS and a desktop publishing package such as *Timeworks Publisher*, it is possible to produce professional-looking printed documents.

PROPER INGREDIENTS

GDOS consists of four main components, all of which must be present for it to operate correctly. There's the program itself, *GDOS.PRG* which must be resident in the *AUTO* folder of your boot disk. Next is the notorious *ASSIGN.SYS* file that tells GDOS where to find the fonts and printer drivers. This must be placed in the root directory of your boot disk outside of any folders. The third and fourth elements are the fonts and device drivers. Font files have the extension *.FNT* and driver file names always end in *.SYS*.

A typical installation has several fonts and a printer driver, all in a

folder called *GEMSYS*, *FONTS* or something similar. You may find that your GDOS installation contains more fonts than you are actually using as there are separate fonts for high and medium resolution. In addition, there will be printer fonts and possibly meta-fonts which include the letters MF in their names. To top all of this, there are fonts for various point sizes!

A typical GDOS set-up may contain five font families, each in four different point sizes – typically 10, 12, 18 and 24. Since GDOS needs separate fonts for the screen and printer, even a basic set-up will contain at least 40 font files and one printer driver. The only one you can actually change is the *ASSIGN.SYS* file.

IN THE RIGHT ORDER...

A GDOS font file contains a bit-mapped image of every character for a fixed point size and device. In other words, each letter is broken down into a series of dots contained in a rectangular grid. The screen display

WIDTH TABLES

Some GDOS applications such as *Opus* and *Timeworks* require a font width table. This contains accurate information about the width of screen and printer fonts and is used to provide better matching of the screen display and the final printed output. The main disadvantage of this system is that a program like *FONTWID.APP* with *Timeworks* has to be run whenever the *ASSIGN.SYS* file is modified otherwise unpredictable printouts may result.

GUIDE TO GDOS

resolution is normally 72 dpi (dots per inch), so an 18-point font measures about a quarter of an inch when displayed. A printer has a much higher resolution, 300 dpi being a typical figure so to produce the same size font, a 75-point version is required. To add to the confusion, such a font is still considered and referred to as an 18-point font because point sizes always refer to screen resolution. A different printer resolution would require yet another font as would a medium resolution monitor.

With GDOS it is not enough to have a screen font – a matching font must be available for the installed printer. GDOS identifies and matches screen and printer font pairs by their ID number which is embedded in the font files.

Font names often give clues about their nature: The driver they are designed for, the point size and even the type-face used. The first two letters normally indicate the distributor – for example, AT for Atari and TW for Timeworks. The next two characters are an abbreviation of the type style – SS for Sans Serif, TR for Times Roman – and are followed by the point size. The last two characters indicate the device the font is intended for: EP stands for Epson 9-pin dot matrix, SP for Star NB15 24-pin dot matrix and so on. CG is used to indicate screen fonts for medium resolution and the last two characters are missed off in the case of a standard monochrome font.

THE SMALL PRINT...

Each output device has a GDOS driver, including the screen. Fortunately, the screen drivers are installed within the built-in operating system so you don't need to worry about these. Any additional hardware add-on, such as a printer or plotter, requires a driver in the fonts folder along with the printer fonts.

Device drivers always end with the file extension .SYS. A Deskjet 500 driver, for example, might be called

DJS.SYS. What is a GDOS driver? A small program that receives instructions from the main application and prints independently of the program. Some applications like *First Word Plus* don't use GDOS and have custom drivers that just send control codes to the printer.

When a GDOS application such as *Timeworks Publisher* needs to print, it loads the printer driver into memory and runs it just like an ordinary program. *Timeworks* loses control of the computer at that point as the printer driver is actually running. Once printing has finished, the printer driver quits and control returns to *Timeworks* and so back to the user. This is why printing cannot usually be terminated half-way through a page.

INITIAL FAILURE

When GDOS loads during the boot process, it first looks for the file *ASSIGN.SYS*. Failure to find this leads

Swiss 10

Swiss 12

Swiss 18

Swiss 24

The Swiss font family as installed in the example *ASSIGN.SYS*.

to an on-screen message and no GDOS. As the file is in plain ASCII, it can be viewed by double-clicking on it and selecting "Show" but editing it requires a word processor capable of loading an ASCII file. For the following example, have a look at the *Typical ASSIGN.SYS File* box.

The first line in the *ASSIGN.SYS* file gives the path that GDOS should follow to find the fonts and drivers. For a floppy disk this would usually be A:\GEMSYS while for a hard drive it might be C:\FONTS – no problem as long as it points to the correct fonts folder. The lines following this list the drivers and fonts for each device.

The screen and printer font lists must match so that GDOS can print in whichever font is displayed on screen. A typical file will have four point sizes of Atari's Swiss font

installed for use in medium and high resolution screens and also for printing on an Epson FX80 compatible printer. Following the path are the screen drivers. The first driver is the default and is used if the application doesn't check the screen resolution. Next is the driver intended for low resolution but this will be ignored if no fonts are listed beneath it. So the first two drivers can often be omitted. Screen driver numbers are usually followed with a "p". This tells GDOS that the driver is permanently installed in ROM and so doesn't need to be loaded from disk.

Driver 03 and the following fonts are designed for medium resolution. The semi-colon is used to enter useful text comments that are ignored by GDOS. These are followed by the hi-res driver and fonts.

Device numbers 11 to 20 are dedicated to plotters while 21 to 30 are intended for printers. Theoretically, it should be possible to install several printer drivers, but very few programs support more than one printer at a time. In the example, device 21 is an Epson FX80 driver which is followed by the printer fonts. If a driver number is followed with an "r", it indicates that the driver remains resident in RAM so GDOS will load it and leave it in memory. This has the advantage of increasing the speed of printing but about 50 kilobytes of RAM are used and not all programs "like" a resident driver.

THE PROOF IS IN THE PRINTING...

Many GDOS programs are now supplied with an installation program that creates the *ASSIGN.SYS* file for you. But understanding how GDOS works means that you can easily add new fonts, remove unwanted ones and add support for a new printer. With the forthcoming release of *SpeedoGDOS* (see page 30 for a full review), the system is here to stay – master it and you'll be able to produce professional-looking documents...

TYPICAL ASSIGN.SYS FILE

If you double-click on any *ASSIGN.SYS* file, you should see something resembling this:

```
PATH=C:\GDOS.SYS
01p SCREEN.SYS
02p SCREEN.SYS
03p SCREEN.SYS ;medium res
ATSS10CG.FNT
ATSS12CG.FNT
ATSS18CG.FNT
ATSS24CG.FNT
04p SCREEN.SYS ;high res
ATSS10.FNT
ATSS12.FNT
ATSS18.FNT
ATSS24.FNT
21 FX80.SYS ;Epson FX80 printer driver
ATSS10EP.FNT
ATSS12EP.FNT
ATSS18EP.FNT
ATSS24EP.FNT
```

The file includes the names of all fonts and drivers along with the path where they can be found. Check out the *Initial Failure* section for more about this example.

WRITING ON

Enjoying last month's great cover disk giveaway?

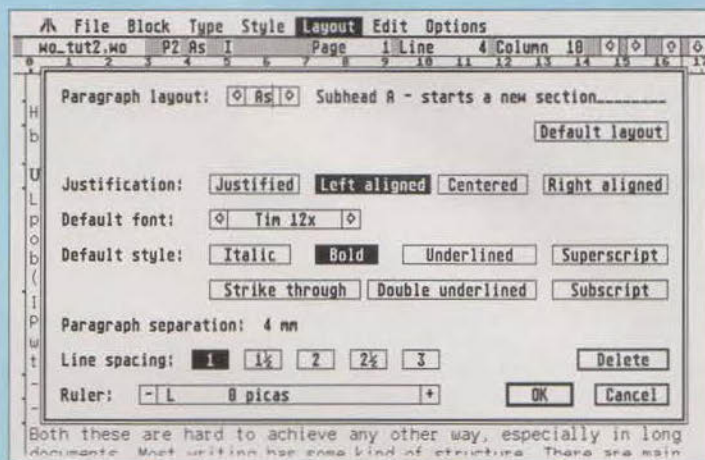
Richard Lane looks at how to get the best out of Write ON...

Last month's tutorial explained the basics of using Write ON's paragraph layouts. But what's the point? Why go through the bother of defining layouts when you can just as easily use styles like bold or italic, or change the font, using the Type and Style menus (or keyboard shortcuts) directly?

If this is how you use Write ON, you're missing out in a big way! Paragraph layouts are a brilliant concept and using them well brings two big advantages. Your document can have a clear and consistent design and you can easily make global changes.

Both of these are hard to achieve any other way, especially in long documents. Most writing has some kind of structure with main sections, sub-sections, pictures with captions, and tables or charts. Perhaps there are footnotes, quotations and step-by-step examples as well. If your document is going to look good and be easy to follow, you need to be consistent – all subheadings should have the same font, style and spacing, for example.

With layouts, every time you mark a heading as "Subhead A", for instance, Write ON automatically gives it the settings you defined for that layout. And if you change your mind, one alteration in the Paragraph Layout Dialogue Box will change every occurrence of that heading in the entire document.



The Write ON paragraph layout dialogue box – the secret to successful document design.

PARAGRAPH LAYOUT DIALOGUE BOX

Click on the left or right arrows in the "Paragraph layout:" box to move to the layout you want to edit, and then simply set the options required. All the text marked with that layout will take on those characteristics. The button marked "Default layout" sets the layout that will automatically be applied to your text unless you specifically choose another. Use this for your "body text" – the text that makes up the bulk of the document.

Note that "paragraph separation" is space applied before the paragraph, not after. If you want to

add space after as well, you need *That's Write 2.0!*

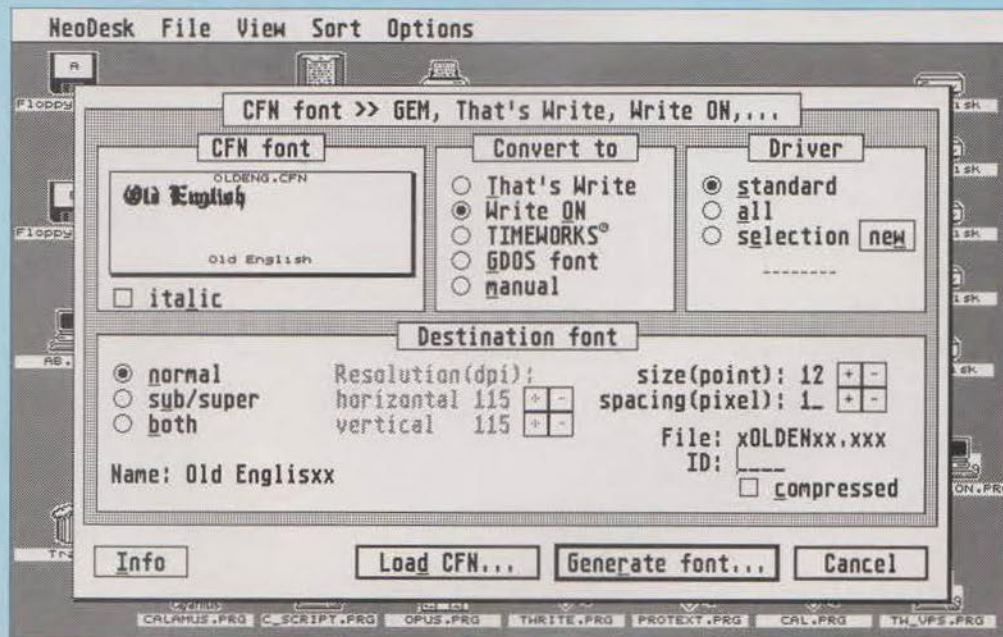
The only element that may be confusing at first is the box marked "Ruler". Here's where you set margins and tabs for the layout. It is interactive with the ruler bar on Write ON's main screen and each paragraph layout has its own ruler. So if you wanted a centre tab 3 inches in from the left, there are two ways to set it:

- Make sure the cursor is in some text marked with the layout you want to change. Then, click twice on the ruler bar where the tab is required. The first click sets a left tab; the second click converts it to a centre tab.
- Alternatively, open the paragraph

THAT'S SNAP

Here's a tip for using TSNAP, the screen capture accessory supplied with Write ON. If you press Alternate, Right Shift and Help together, the current screen is captured in memory. Now, open TSNAP and select "in buffer" to crop and save the image in the normal way. This means you can grab screens even when the desk menu is not available.

Compo's CFont, a useful Calamus font converter.



MERGING THE MAIL

You can do mail merge with *Write ON* – that's when you want to send the same letter to dozens of different people. There are two elements involved; the document that forms the standard letter, and another file containing the names and addresses required.

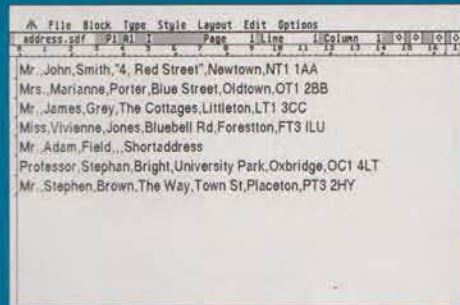
You can make the name-and-address file in *Write ON*. Type in the details following these rules:

- Use commas to separate the different bits of information, or fields, in each address.
- If you want to include a comma as part of a field, enclose the whole field in double quotes.
- Each record must have the same number of fields. You can include blank fields by putting two consecutive commas with nothing between them.
- Don't put a comma at the end of the last field.
- Press Return at the end of each record, and not before!
- Make sure no field is longer than 80 characters.
- When you save the file, use "Save ASCII". Name the file with an .SDF extension, and choose "No" when *Write ON* asks if you want a carriage return after each line.

Now for the master document. Whenever you want to include a field from the name-and-address file, type #n#, where "n" is the number of a field. For example, if you type #1#, *Write ON* will know that you want the first field in each record to be inserted there.

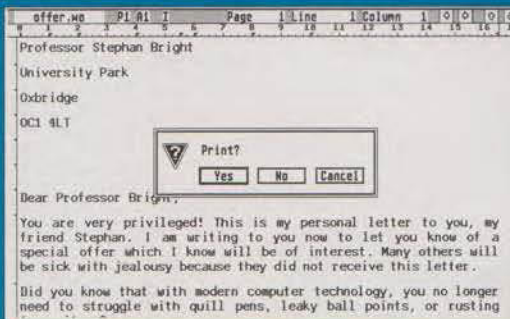
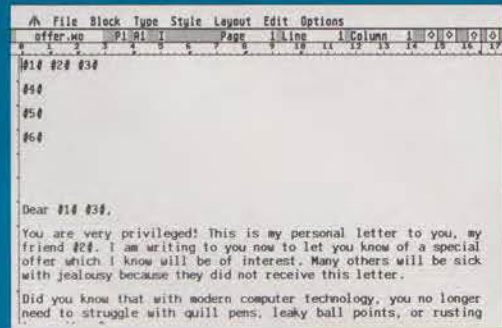
One further tip – if you put a plus sign after the number, *Write ON* will automatically insert a space before the field unless it is empty. That way, you avoid unnecessary spaces between fields. For example, #3+#.

Select "Mail Merge" and follow the prompts from *Write ON*. You can choose between "Print", which simply print out a version of the document for every record in .SDF file, or "Query" which prompts you to print or not each time.



It all starts with a data file like this...

...then you write your glowing prose...



...and sit back and let *Write ON* do the work!

layout box and click on the "-" at the left of the "Ruler:" section until the word "Tab:" appears. By default, the tab is set in Picas, which are units of one tenth of an inch. Three inches is 30 picas, so enter 30 in the box. Then click on the word (left) to set the tab you want: left-aligned, centered, right-aligned, or decimal.

Note that measurements in *Write ON* are rather eccentric. The ruler is marked in pseudo-centimetres, which are actually 4/10th of an inch! The secret of working with *Write ON* is to stick to picas – once you've twigged that there are ten picas to an inch it is not too difficult.

You'll notice three other settings in the "Ruler:" box. L stands for left margin, and R for right margin. The third, L1, is a left margin that only applies to the first line in each paragraph.

If you get strange results, like finding your text gets cut off at the right-hand edge when printing, it is because you have set up an impossible layout. The left and right margins in the paragraph layout must fall within the space allowed in the current page layout. If you'd rather not do arithmetic, you can easily check this out by looking at the ruler bar – the right margin is shown by a thin vertical line.

FONTS AND WRITE ON

There's not much point in having a multi-font word processor unless you have some fonts! *Write ON* comes supplied with a few, but what if you want to add some more?

In practice, there are three ways to get fonts into *Write ON*. Firstly, you can get hold of GEM fonts specifically adapted for *Write ON* or *That's Write*. Secondly, obtain *Fontkit Plus 4* from the ST Club (0602 410241) which comes with some *Write ON* fonts, and very clear instructions about adapting other GEM fonts for the program. Finally, you could use Compo's *C-Font* program. This is a neat utility that converts Calamus fonts automatically, at whatever size you choose.

TIPS FOR GOOD DOCUMENT DESIGN

- Use paragraph layouts to set fonts and styles whenever possible. Give them clear, descriptive names like "Chapter heading", "Quotations", and so on.
- There are many different ways to lay out text, and each sends a message to the reader. Centred headings look more significant than left justified headings, for example. Small type makes text look technical and dull. Indenting a paragraph tells the reader that it falls outside the main flow of the text.
- Set paragraph spacing carefully. Always put a small space above every paragraph, and a larger space above headings and sub-headings.
- You can get excellent results by using the "L1" left margin for the first line of a paragraph. Personally I don't like indenting the first line – I prefer to use a little extra space to separate paragraphs. But the "L1" margin is great for numbered paragraphs. Set it to outdent the text by 3 picas or so. Then, place a left tab at the same point in the ruler. When you enter the text, type the number and then TAB. This gives very neat results.
- When you have developed a set of paragraph layouts you like, save them to disk using the Layout menu. If you call a layout *WRITE_ON.LAY*, and save it in the *WRITE ON* folder, it will be loaded automatically, complete with all the necessary fonts.

WHAT ABOUT THAT'S WRITE?

Write ON is the junior member of a family of Compo word processors. It's got everything you need for advanced word processing... except a spell checker! *That's Write 1.5* has that, along with index and contents generation, footnotes, multi-column printing, chapter handling, and a unique "paragraph level" feature which enables you to hide whole sections of your document to see the outline structure.

That's Write 2.0 goes even further, with up to 9 documents in memory at the same time, each in a separate GEM window, and its own mini-programming language for performing automatic calculations or sophisticated document processing. *That's Write 2.0* also supports compressed fonts, which makes an enormous difference to how many fonts you can fit on your disks – the savings can be 80% or more.

Mouse Tricks 2

A mouse-driven operating system was a relatively new and exciting concept when the ST was first launched. Ofir Gal considers a cheap utility that brings the pleasure back...

SUPER MOUSE!

There's a broad range of mouse accelerators in the public domain including Atari's simple version with the Control Panel. Some programs allow you to use the right button to mimic a double-click, or a press of the shift key while others offer user-definable speed curves. You can even have Mac-like pull-down menus where clicking on a menu title makes it drop. *Mouse Tricks 2* is a low-cost solution that offers these features and a whole host more.

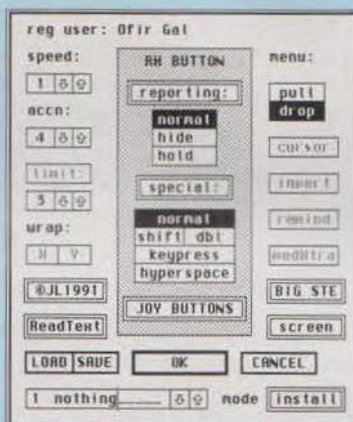
Arriving with a 67-page manual, *Mouse Tricks 2* includes several versions of the program so allowing you to choose the one that fits your needs. The full version includes on-line help and *ReadText*, a text-reading utility, but takes up some 69 Kb of precious memory. Other versions exclude some features and so use less memory – it's up to you to decide how much RAM you

can spare although *ReadText* is also available as a separate accessory. Another goodie is *BigSTE* which provides a virtual large monitor on a standard screen. Unlike its PD alternatives, the scrolling is very smooth and the program is fully integrated into *Mouse Tricks 2*. As the name suggests, this only works on an STE although an STFM version is in the pipeline.

ALL THE TRICKS

Features within *Mouse Tricks 2* range from a mouse accelerator to pull-down menus and a screen saver. Being a desk accessory, it can be opened at any time and reconfigured.

The main dialogue box gives full control over acceleration and the absolute/relative speeds. Mouse response can be slowed down, very useful for tracing large pictures



The main dialogue box allows access to all features and enables the user to quickly select one of 20 configurations.

or drawing fine detail, and Mouse Wrap makes the cursor automatically reappear on the other side of the screen to the one it has just exited from. If the Cursor feature is enabled, the cursor starts moving as if the cursor keys were pressed whenever you hit the edges of the screen.

The screen saver works best in medium resolution where it darkens the screen. In monochrome it can only invert screen colours. A joystick can also be incorporated with various functions assignable to each button – even key presses can be emulated. Such a large selection of tricks allows you to set up your system in a very personal manner.

User configurations can be saved or loaded at will. A configuration can be linked to a program so that *Mouse Tricks 2* will set itself according to the current program. The accessory can hold up to 40 such configurations in memory.

It even has a flexible text file reader. Up to eight files can be held in memory and features such as line and page scrolling, text find, and block marking are all included. There's support for First Word files and a marked block or the whole document can be printed.

VERDICT

A flexible utility such as this is rare, especially at such a low price. Unfortunately, the user interface is rather confusing. A shame – *Mouse Tricks 2* is extremely good value for money and is capable of providing you with all the mouse tricks you'll ever need.

Good array of features
Flexible text reader
included

PROS AND CONS

Confusing layout
Most features have PD
equivalents

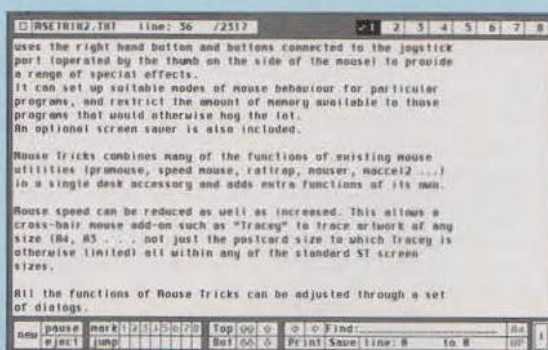
"Far more than just
a mouse accelerator
but an awkward
user interface lets
it down"

NAME: MOUSE TRICKS 2
COMPANY: ST CLUB
CONTACT: 0625 410241
PRICE: £9.95
MIN MEMORY: 0.5MB

EASE OF USE ★★★★★
DOCUMENTATION ★★★★★
EFFECTIVENESS ★★★★★
VALUE FOR MONEY ★★★★★

OVERALL **80%**

Hidden among the many features of the program is a very useful text reading utility for plain text files or First Word documents.



Mouse resolution is measured in dpi (dots per inch) and a good quality mouse should have a resolution of around 280 dpi – moving the mouse an inch to the left will move the cursor 280 pixels in the same direction. Experience shows that while this is fine for short range movements, a faster response would be better for quick jumps to, say, the menu bar. A mouse accelerator works by constantly monitoring the mouse movements. Slow movements are normally left untouched, but when the user moves the mouse a little faster, the number of dots travelled is doubled. Faster movements are multiplied by three and so on, giving the mouse a more responsive 'feel'. Some accelerators enable the user to define the thresholds and speed ratios to suit his mouse and personal preferences.

A NEW ADDRESS

Need a budget database?
Mike Robinson examines one
possibility from the ST Club...



A database can be used for a variety of purposes – names of customers and their details, stock lists and for keeping track of which customers buy which products to optimise advertising. But modern databases are quite complex to use and often beyond the needs of the home user. *Address* is a utility designed to simplify the maintenance of a database and is primarily intended to work as an electronic address book.

WHAT DO YOU GET?

Address consists of the main database program and a desk accessory version for accessing a database while running other programs. Installation is easy with the supplied Install program and like many current ST programs, *Address* is best run from a hard disk.

New names are entered into the main program and existing entries edited. Entering data can be a slow process, but *Address* is designed to speed this up as much as possible. For instance, whenever a new name is entered, an alert appears enabling you to immediately enter another.

Each entry consists of name, full address, telephone number and a connection tag which can be used to group entries into categories such as 'friends', 'clients' and so on. As there is no provision for multiple phone

ADDRESS File Print Data-Entry Sort Options Key-Define

Version 1.6
Name: Atari UK
Street: Atari House Railway Terrace
District: Slough
Town: Berkshire
Country: UK
Post Code: SL2 5BZ
Telephone: 08753-533544
Connection:

Search Mode: Repeat
DOUBLE CLIK: REPEAT
CC >>

Information Box File Loaded: H:\ADDRESS\CONVERTED.DAT

Program Status: Normal Operation Mode
Raw addresses storable: 7418
Tot addresses in file: 122
Currently displaying num: 15

The main window. All functions are available from the menu bar or keyboard shortcuts. The main functions are also accessible via on-screen buttons.

numbers, the only way to handle these is to have several entries for the same person or company. While *Address* can only handle one database file at a time, several data files can be stored on disk and loaded as required. There are various sort options, including by alphabetical name as well as by address or connection tag.

Address features a simple but effective search function that can start from the beginning of a file or from the current entry and when a name is found it is displayed on screen. At this point the address can be printed out or telephone number dialled out on a connected Modem. You can

scroll through the file at various speeds and can define a default button by double-clicking on it. User defaults can be saved to disk for future use.

Address also has extensive label printing facilities. Only fonts built in to a printer are supported, but you can send control codes to the printer to select print mode and fonts as required. Using the search options, single or multiple labels can be printed per entry found.

Probably the most useful feature of *Address* is the accessory version, incorporating the main features of the program with a few additions of its own. Numbers can be dialled

The desk accessory looks and feels very much like the main program and enables immediate access to the database. It features a dialler, label printer and can even paste an address into a word processor.

Address D1.6
H:\ADDRESS\CONVERTED.DAT

Name: Atari UK
Street: Atari House Railway Terrace
District: Slough
Town: Berkshire
Country: UK
Post Code: SL2 5BZ
Telephone: 08753-533544
Connection: Companies

Dialler Timing Printer Version << >>
Search Repeat Files Postbox Add New

ADDRESS D1.6 (c)1990-92 Degsoft Software & ST Club

Modem Autodial

Number: 0875353344

Dial Cmd: ATDT Dial Hangup OK

Hang Up Command: \J(10)++\J(10)ATH_

The dialler can be used to automatically dial any number in the database via a MODEM.

using a modem, saved to the clipboard or even pasted directly into the current application via the Postbox function. The only disadvantage of using the accessory is that data files must be loaded each time it is opened and while this is carried out automatically, it's a slow process on a floppy disk system. Call timing is also included and a log file of all calls is maintained.

Simple to use
Accessory enables access
to database at any time

PROS AND CONS

Lacks the features of a full-blown database
Slow on a floppy disk system

"A cost-effective and simple electronic solution to the indispensable address book"

PRODUCT: ADDRESS 1.6
COMPANY: ST CLUB
CONTACT: 0602 410241

PRICE: £12.95
MIN MEMORY: 0.5MB

EASE OF USE ○○○○○
DOCUMENTATION ○○○○○
EFFECTIVENESS ○○○○○
VALUE FOR MONEY ○○○○○

OVERALL **85%**

INSIDE INFO

Address is a simple database as opposed to a fully-fledged relational database. Programs like *Superbase* allow you to design your own forms to fit in as many items as you wish with various data manipulations. A database can also output files with names that fulfil a set of conditions and export them in different formats. *Address* also features import and export facilities via *Convert*, a separate program included in the package.

TUMBLEVANE PDL

6, West Road, Emsworth, Hampshire, PO10 7JT

Telephone: Emsworth (0243) 370600

GAMES

GM 02: Blaster. Invaders clone + 7 more.
GM 05: Bermuda Race 2. Racing ship game.
GM 10: Cribbage & Startrek + 1 more.
GM 21: Llamatron & Mutant Camels.
GM 25: Boxing.
GM 26: Flight Simulator.
GM 27: Monopoly + 3 more.
GM 31: Spectral Sorcery. Nova + 2 more.
GM 32: Three Seuck shoot-em-ups.
GM 40: Tennis & Plumb Crazy.
GM 42: Penguins. Reviewed issue 12.
GM 43: Mystic Mirror. Very good RPG.
GM 52: Battle for the Throne. RPG.
GM 62: Crossword & Chess + 3 more.
GM 69: Ozone. An award winning platform game.
GM 71: A Question of Snooker. Quiz game.
GM 74: Top Trainer. Horse racing + 3 more.
GM 75: Drachen & Super Games. Reviewed issue 10.
GM 77: Tai Pan (1 Meg) & Top of the Pops.
GM 78: Violence. A Mega shoot-em-up.
GM 82: Smash Hit Tennis. Reviewed issue 10.
GM 83: Hoverjet Simulator Demo. 3D vector graphics.
GM 87: Bar Games. Pool, Darts, etc.
GM 88: Hunt for Grey November. Good sub hunt game.
GM 90: Droid 2 and 3. Reviewed issue 13 (1 Meg).
GM 94: Dungeon Lord. 3 level RPG game.
GM 95: Arthur of the Britons. A great RPG (1 Meg).
GM 97: Fatemaster. See review this issue.
GM 99: Viking 3. Protect Earth from invaders.
GM 100: International Cricket. Graphic game of cricket.

ADVENTURES

ADV 13: Dragon Slayer.

ADV 24: Snatch & Crunch + 3 more.
ADV 25: Even Crystals. Graphic adventures.
ADV 26: Elven Crystals 2. Graphic adventures.
ADV 31: Susan. Adult adventure.
ADV 35: Deena. Adult adventure.
ADV 40: Grandad and the Quest. Mega adventure.
ADV 41: Windfall. Text adventure.
ADV 44: Pyramid. Takes some time to finish.
ADV 49: Alice in Wonderland.

UTILITIES

UTA 2: Sticker 3. Label Maker for 3.5" disks.
UTA 3: News/Disk Mag Creator + Word Extractor.
UTA 5: Supercard. Chef & TLC. Databases.
UTA 7: The Entertainment Files & more.
UTA 9: Address Book, Disk Manager & more.
UTA 20: Mono Emulator & 20 Accessories.
UTA 21: Class, PMF, Accounts + 2 others.
UTA 22: Double Sentry. Accounts program.
UTA 28: Award Maker. Create certificates.
UTA 30: ZX81 & BBC Emulator.
UTA 34: Database Master 1.
UTA 35: Spectrum & ZX81 Emulator.
UTA 36: Data Editor (1 Meg). Data into graphs.
UTA 38: Five Databases. One of them will do it!
UTA 48: Sagrotam. Virus killer.
UTA 44: Text Viewer. Info and second manual.

MISCELLANEOUS

MISC 1: Generation Gap. Family tree.
MISC 2: Poolwise V3.8. Try winning a fortune.
MISC 3: Biorhythms. Check out how you feel at anytime.

MUSIC & MIDI

MUM 1: Accompanist. 16 track sequencer.
MUM 2: In Control & Sconvert.

MUM 4: Composer with tunes.
MUM 18: 1632 Voices for Yamaha DX/TX.
MUM 19: Tri-sound sequencer.
MUM 21: Mididrum & Play (1 Meg, Hi-res).
MUM 22: TX81Z Editor V2.1.
MUM 24: Alchime Jr. Multi-tasking sequencer.
MUM 45: PSS Utilities (disks for 680/780/790).

DTP & WP

WPD 1: ST Writer Elite & Spell Checker.
WPD 3: Typing Tutor.
WPD 12: Opus V2.2. Spreadsheet.
WPD 14: Calamus Manual. Handy tips.
WPD 15: 1st Word Utilities.
WPD 19: Printing Press (1Meg).

ART & GRAPHICS

AAG 1: Palette Master.
AAG 5: Crackart. With English docs (1 Meg).
AAG 6: Fractal Zoom.
AAG 7: Fractal Utilities.
AAG 10: ST Cad.
AAG 21: Picture Converters.
AAG 22: Public Painter (Mono).
AAG 27: Minidraft V1.1.
AAG 29: Paintpot.

EDUCATIONAL

EAC 2: Body Shop & The Search.
EAC 6: Shipwreck & Hangman. For maths & spelling.
EAC 8: Perfect Match & Letter Bomber + 2 more.
EAC 9: Chunnel. French teacher.
EAC 11: Maths made easy & Geography test.
EAC 15: The history files. 3 disk set £3.50.
EAC 18: The world (mono).
EAC 19: Planetarium.
EAC 20: Telltale chemistry by a B.Sc.

LICENCEWARE

From Organised Chaos Licenceware and Kev Davis come two top quality games.
All OCL disks are £3.00 each, great value for money.

OCL 1: Dead or Alive. This is a humorous and wacky adventure that will take you some time to finish, but will have you laughing all the way.

OCT 2: Murder on the Orion Express. A graphic adventure that has a different ending each time you play it. Based on a spaceship and a crew that keep getting killed.

From HeavenSent Licenceware & Tumblevane PDL. All disks on the HeavenSent Licenceware label are £3.00.

HST 1: Hammer to Fall. A great RPG that brings a new idea into the world of public domain, try this and see what you think.

HST 2: Slayer. Another RPG game where you must discover where your sister is and destroy the evil one. Both these games use multi-option input, rather like playing a board game.
Special Offer EAC 21: World Factbook.
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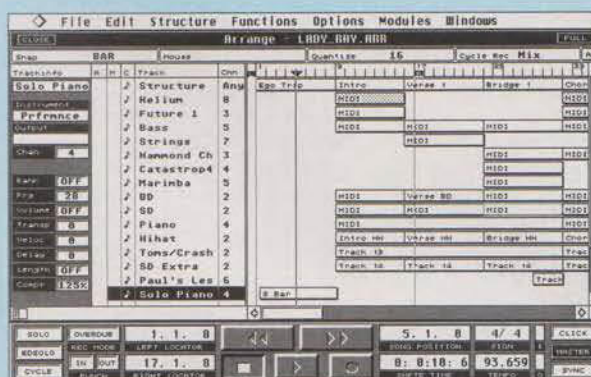
I have been trying to run Cubase and other sequencing programs (including ST Review's 1st Track demo) on my recently upgrad-

ed 520STFM but the screen is corrupted every time. It looks as if several windows are superimposed at the same time and all the text is slashed across the bottom so that half of it is missing and totally unreadable.

I have checked all the software on other STs and it works OK. My upgrade to one megabyte was successful as no errors were reported after a couple of hours checking. Also other programs such as First Word Plus, Timeworks and Paintpot work fine on my machine.

As you can imagine, this is a very frustrating problem and I've had the ST in bits a couple of times to check the upgrade. I don't think that's the problem. Could it be that I'm using the wrong monitor (a colour TV) or is it just that my machine is too old and knackered to cope? What do you think?

Paul Sharp, Palmers Green, London



Steinberg Cubase version 2 - pirated to death.

If you check the manual that comes with all the music software you own, you'll see that the answer is simple - the programs you name only work on a hi-res mono monitor.

The fact that you're asking this question tends to infer that you're using a pirate version of Cubase otherwise you would have called the hot-line of the UK distributor, Harman Audio.

Piracy has done irreparable damage to the ST software market. Because people would rather copy a program and write to a magazine to find out how to run it, many publishers now prefer to concentrate on more profitable markets. I bet that the people with pirate software are amongst the first to complain at the lack of new games and other programs for the ST... VL

software that will allow me to convert the images into 256 grey scales as opposed to the 16 which I find a bit blocky? Failing that, any ideas?

James Ryder, Chalfont St. Giles, Bucks

Most ST digitisers grab the screen in low resolution and save the pictures in Degas format, 320 by 200 pixels and 16 colours. Unfortunately you can't get more detail out of an image than is present in the first place, so if you grab and save 16 colours, that is all the detail that the image will ever contain unless you painstakingly add it yourself.

Migraph's Touchup will import your Degas image and convert it into a 256 greyscale TIFF but it won't look any different!

A better bet is Retouche. Again, it will convert your image into a 256 greyscale TIFF but it has the additional advantage that you can actually edit the picture. You can adjust things like brightness and contrast, and even blur and smudge parts of it to obtain a smoother, less blocky effect. As long as you don't expect miracles and don't mind doing some of the work yourself, Retouche is the answer. AW

ALL IN SCALE



Thanks for a great magazine. You knock pixels off its rivals. Please can you help me to solve a problem? I have a digitiser which I use with my Atari 1040 STE. Is there some



Retouche: the ultimate image processor?

THE ST EXPERTS...

VIC LENNARD

Editor

When Vic is not editing your favourite magazine, he wears the hat of Director of the UKMA (UK MIDI Association) and can help with all aspects of music and sequencing.

TONY KAYE

Deputy Editor

Our very own (recently promoted!) Deputy Editor can help with the ST's operation, hardware and software along with upgrades and consumer problems.

OFIR GAL

Freelance Writer

What Ofir doesn't know about HiSoft BASIC, HiSoft don't know! He can help with upgrades and system enhancements, too.

ANDREW WRIGHT

Freelance Writer

If you need help with DTP or general printer problems, Andrew's your man.

IT'S HARD



Thank you for your excellent magazine which continues to bring us up to date with the world of Atari. I would be grateful if you could cover the

following two technical points.

In December 1992, I purchased second-hand, an Atari Megafile 30 which, contrary to some reviews I have read, is excellent. It was purchased from a local Atari dealer and had just had the SCSI replaced.

When running the ICD RateHD program I am informed that the device name is an Adaptec 4000/4070. This, as I understand is the actual hard disk that is fitted inside. Is it possible to replace the hard disk with a larger capacity one? What type of hard disk do I need to buy? Would I require new formatting software?

Issues 11 and 12 of *ST Review* both carry good articles on the Plus Cache 16MHz accelerator board. I am currently thinking of upgrading to one of these boards but have never seen the actual speed improvement. 100 per cent improved speed, as stated in issue 11, is hard to visualise. Could you give some more practical examples of how much faster the machine will run. I have been lucky enough to see a version of the new Calamus SL running on a four megabyte STE. The program is useless at 8MHz on this machine as it is so slow. Would an accelerator board running at 16 MHz be fast enough to allow practical use of Calamus SL?

Any advice on these two topics would be gratefully appreciated.

David Grieve,
Glasgow, Scotland.

The Megafile 30 is a reliable unit, but cannot be compared in terms of speed or noise level with most modern hard drives. The Adaptec 4000/4070 is the host adapter, not the actual mechanism; it isn't a standard SCSI unit and unfortunately

cannot be upgraded.

The Plus Cache 16MHz board gives a speed increase of at least 70% in most situations. For instance, scrolling through a long document in First Word Plus is about 50% faster. Screen redraws are almost 100% faster and I would expect Calamus SL to be far more usable with this board installed. 8MHz was considered fast 8 years ago, but programs are far more demanding now where processor power is concerned. Contact the Atari Workshop on 081 693 1919 for more details. OG

TIMEWORKS TROUBLES



I am having problems making Timeworks work. I have installed the program according to the instructions on page 17 of

issue seven and run the program called FONTWID.APP, but that is as far as I can get. When I load the Startup Disk and point to the File menu. "New" does not appear. I have clicked on the New Folder but this does not prompt the dialogue box asking if I want to load a style sheet. Can you advise me? I have a 520 STFM with TOS 1.02.

I am also having trouble backing up the cover disks. I have read the letter on page 126 of issue 8. How do you make Diamond Format run? How do you change the extension to .PRG? I have read the document file and I can't see how to do it. I would be grateful if you could advise me on these problems.

J Morris, London W12

Timeworks has to be run from the desktop before the "New" option is available to you. Turn the computer on with the Startup disk in the drive. When you get the desktop, double click on the file PUBLISH.APP (or highlight

it and click on Open from the File menu). Once this is done, the program will function as it should.

Diamond Format is an accessory. It is run by placing in the root directory of your boot disk (so that it is showing in the first window you open, not in any folders) and will appear under the Desk menu option when the desktop appears.

I suggest reading the user manual that came with your ST or try and find a good book like Your Second ST Manual, available from all good ST dealers.

Incidentally, if you ever do need to change the details of a file name, highlight the file with the mouse and click on Show Info... in the File menu. You are then able to change the name of a program. Don't do this unless you know what you're doing, though. You could end up with a program that won't run! TK

MORE IN STORE



First, may I thank you for producing an outstanding magazine. I have a question for you. I've been given a disk drive by a friend. It's from a PC

and can apparently take HD disks. I have a 520 STFM upgraded to 2.5 megabytes of RAM. Can I use this drive in my ST as I still only have a single-sided internal drive at the moment?

Geoff Brown, London, Nzz

There was a feature on upgrading to a 1.44 megabyte High Density disk drive in the March issue (number 11) of ST Review. You may be able to use your drive, but you'll need to check that it will operate with the high density module that is needed to control it. This is available from the Atari Workshop (081 693 1919) for £39.95 and lets the drive operate at the correct speed. Also, check the article in issue 11 for more details as you may also need a different floppy disk controller chip as well. And as for cutting out part of the casing around the disk drive lever... VL

If you don't get this screen in Timeworks, you can't get any further...

BAD CONNECTION?



I have recently acquired an Amstrad PC-14 CD VGA monitor. Can you advise whether it is possible to connect it to the

monitor port on the back of my 1040 STE? If so, what would I need and where would I buy it?

C J Ehala, Newbiggin-by-Sea, Northumberland.

Using a VGA monitor with an ST is certainly not as simple as connecting it to the 13-pin socket at the rear. The ST uses a non-standard sync rate and the monitor's electronics have to be tweaked to take this into account. A second problem is that a standard VGA monitor lacks a speaker.

Various companies have attempted to convert VGA monitors, especially since the demise of the Atari SM-144. However, without exception, all have had problems. Have a look at the A Clearer View article in issue 13 of ST Review for more information. VL

PACKETS OF DATA



After reading an old issue of Atari ST Review I saw that one of your writers uses his ST with a Ham

Radio. I am currently writing a GCSE essay for information technology. In this essay I have covered different types of data communication and have some general information on packet radio, but I would now like to show the examiner a packet radio set-up.

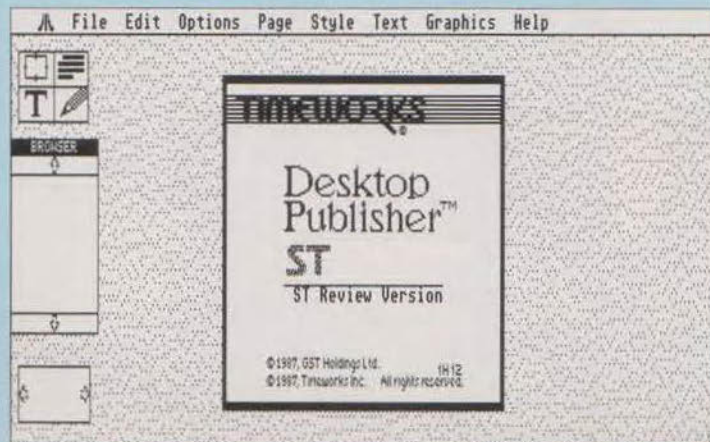
I have looked in a number of amateur radio books but they have no specific information. I would be eternally grateful if you could give me details of a good TNC and an ideal radio. I am unsure about which waveband I would find an ST-compatible packet BBS.

If you don't know any of the above, I would be happy if you could supply me with the name and address of anybody or any company who may know.

Dave Moss, Chessington, Surrey

It's nice to see that there's interest in Packet Radio, even if it is just for a school project.

There are certain parts of the Amateur bands available for Packet use. As a SWL (Short Wave Listener), probably the



best of these is 144.650 MHz or 144.675 MHz. Any good scanner should be able to reach this frequency. All packet is "ST-compatible" as it is decoded into ASCII by the TNC and is not machine-specific. As for a TNC, a good starting point is the Pac-Comm Tiny-2, available from Siskin Electronics, 2 South Street, Hythe, Southampton SO4 6EB. Tel: 0703 207155.

For more information on Amateur Radio and licensing, contact the RSGB (Radio Society of Great Britain), Lamda House, Cranborne House, Potters Bar, Herts EN6 3JE. Tel: 0707 59015. TK

PROGRAM SUPPORT

GENERAL I am writing to ask for your help in trying to obtain some art programs to run on my PrintMaster Plus program, as I am unable to get hold of any through my local computer shop.

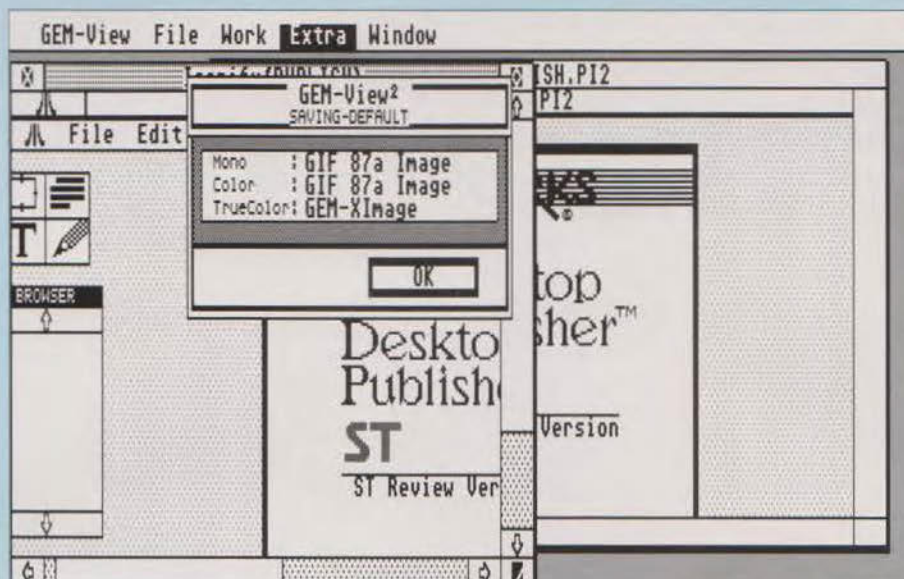
The supplier is a company in the USA called Unison World Software, but I have written to them and all they said was to contact my local computer supplier for the software that I need.

Could you please tell me if a PD library has any art packages that run on PrintMaster Plus? I know that the company does four extra disks to run with the master disk but I can't find them. If you or any of your readers can help, I would be very grateful.

I would also like to thank you for the best ST magazine on the market, so keep up the good work!

HH Harrison,
Ebbw Vale, Gwent.

By coincidence, I was talking to Mike Goodman about this very program just 24 hours ago.



GemView lets you view GIFs while ImageCopy 2 can convert them to various other formats.

There are many excellent products like PrintMaster Plus and others that have just disappeared from the UK market. The good news is that Goodmans has a range of disks available to support this particular package. You can call Mike on 0782 335650. TK

PICTURE DISPLAYS

GRAPHICS I wonder if you can help me with a small problem. I have been given some disks with files called .GIF on them. I understand that they are a PC file format, but I've also been told that there is a way of viewing them on my upgraded 1040 STFM. What program do I need to do this? Is there anything in the public domain that would do the job and save me my hard-earned pennies?

I'd be grateful for any help you can give me.
John Kerry, Battersea, London

GIF stands for Graphics Interchange Format and was created by Compuserve Inc. for transmitting on-line graphics across the Compuserve network.

As such, it was never intended for use as a graphics compression program but the degree of compression achievable is so good that many programmers have incorporated it into their software.

There are a number of PD picture viewers such as the highly rated GemView 2.01, reviewed in Issue 11 (March 1993). This lets you look at .GIF files and reduces them to the number of colours available from ST low-res.

They still look pretty impressive, though. This program is actually designed for the Falcon and displays .GIF, .JIF and various other formats in over 32,000 colours. For file conversions, check out Imagecopy 2 (£9.95) from the ST Club, 2 Broadway, Nottingham NG1 1PS. Tel: 0602 410241. VL

THE RIGHT CONNECTIONS?

GENERAL This is more a question than a problem. I have a couple of STs that I use for business and a 520 STFM for games. The work machines (I'm a freelance designer) both have 105 megabyte hard drives, but I always find that the file I want is on the wrong machine!

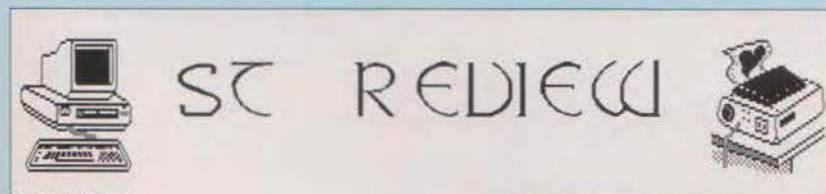
I usually connect the two using the modem ports and I use a PD terminal program to transfer the files across.

Is it possible to network the two (or three) machines? If so, what do I need? As I am not very technical minded, is there a company that specialises in this kind of thing that would help?

Paul Queenly, Falkirk, Scotland.

The ST, although not designed to be easily networked, can be linked using DataNet hardware.

This is available from Ladbroke Computing, 33 Ormskirk Road, Preston, Lancs. Tel: 0772 203166. Prices range from £59.99 depending on the type of network used and the number of STs being connected. TK



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STEREO MASTER: A low cost, quality sound sampler for the ST. Features include: Sample rates from 3 to 27KHz. Mix sample with full or half volume, HiFi stereo playback option using the Playback cartridge (not included). Full ST Stereo support.
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VIDEOMASTER ST
Videomaster combines a Video Digitiser and a Sound Sampler in one low cost unit. Several images can be held and sound samples added to them. Colour digitising can be achieved using the filters provided (still camera) or by using an RGB Splitter (not provided).
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MISCELLANEOUS

ROBOSHIFT: Auto sensing joystick mouse switch box. Automatically detects device being used.
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DRAGON MOUSE: Budget priced replacement mouse. features micro switches and 280 dpi resolution.
MJC PRICE £12.95

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LEARN THE LINGO

This month in a new look Learn The Lingo we take a look at the terms used in the world of comms and modems...

ARCHIVED FILES

Using a modem, especially a slower one, costs money. If you can reduce the size of a file by compressing it, you can make transfers quicker and cheaper. See also Zip Files.

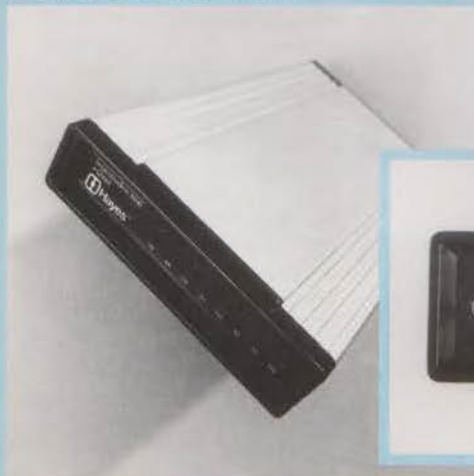
BAUD RATE

The speed at which a modem and computer talk to each other. Can be different from the connection speed between the modem and bulletin board or remote modem.

BULLETIN BOARD

A "central message area" used by people to leave messages for others (both personal and general) and transfer files and programs. Bulletin boards (BBSs) are also storage areas for PD software and information files that can be downloaded by the user, often free of charge. Some may even have multi-user adventure games on them (see M.U.D.D.).

A Hayes 9600 baud modem.



COMMS

The word that covers data communications – a bit of a mouthful! Simply a term that covers the general use of modems to pass information between remote users.

DOWNLOAD

Taking a file from a BBS. Some boards insist that you put something onto the board by *uploading*, but generally it's a way of having instant access to PD programs.

EMAIL

Mail can be sent privately using Electronic Mail. All you need is a mailbox name or number and a BBS that communicates with others and passes your mail on for you. Information about the various Email services can be found on the relevant boards.

LOG ON

Connecting to a BBS involves such a procedure usually consisting of a user name and a password. The reason for this is to make sure that no-one else can log on and send abusive mail using your name and, of course, read your private mail!

MODEM

The word MODEM is a shortened form of MODulate-DEModulate.

M.U.D.D.

Multi-User Dungeons and Dragons is the original Role Playing Game (RPG) found on BBSs. It is totally interactive and very large, but it's

Connecting a modem is simple, just a line to the telephone, one to the computer and, of course, power.



Modems come in all shapes and sizes, including pocket-sized!

also extremely easy to run up a very large telephone bill!

OLR

An off-line reader, often called simply a reader, can log on to a BBS, get your mail and messages at high speed and then log off. You can then take your time to read it all and answer at your leisure. When you've finished, the OLR will log on again and upload your replies so saving time and money.

RS-232C

The socket on the back of the ST marked "Modem" is an industry-

standard RS-232C port. This means that practically any modem can be connected to it. Some computers have a 9-pin plug (instead of the ST's 25-pin variety) as found on the Falcon.

TRANSFER PROTOCOLS

Files can be sent and received over a telephone line using various different systems. It is important that both the user and BBS are using the same system otherwise file transfers will not work.

X, Y AND Z-MODEM

Three different types of file transfer. The latter is probably the fastest of the three, but experimentation is always wise to find out which suits you and the BBS you're using.

ZIP FILES

ZIP is a form of data compression, fast becoming recognised as the standard for file transfer. Efficient and fast to pack and unpack. It is also compatible with PKZIP, the PC compression format.

Once again, the mailbox is full of your letters, especially in the light of recent changes...

LETTERS

ORDERING UP A PROBLEM

Your comments on the following situation would be appreciated.

On 23/01/93, I ordered two items from Datagem. These were advertised in *Atari ST Review* Issue 9, Jan '93. Within a relatively short time, I received a letter and refund cheque for the first item. The program *Zool* apparently is not coming out on the ST – so why advertise it, then?

Three weeks after ordering, I received a copy of *Streetfighter II*. Not loading, I rang Datagem and informed them. My son's computer is an Atari STM with one megabyte of memory. As instructed, I returned the game. A week later, I received a replacement package. On finding the same problem with this, I rang the same day. I was informed that the suppliers, US Gold had only just informed Datagem that the original issue was for the STE only, but replacements would be despatched for other models. Again, I did as requested and returned the package, this time with a plea for compensation to cover time, postage and telephone calls.

Another three weeks passed and I still had not heard from Datagem, but on enquiring, I was told that someone would ring me back. This did not happen. I tried again and was told that the "returns lady" was not at work at this time. Eventually, after a total of eight weeks since I first ordered, I got a call

back to tell me that there was only an STE version of the game!

Phillip Baxter, Basingstoke, Hants.

I sympathise with your situation Phillip but let me give you a scenario. Let's say that I'm running a mail order company and get wind of a hot game being released. A couple of telephone calls later and I know what date the program's being released. Bearing in mind that this program's likely to sell in quantity, I want to get the fact that I'm stocking it across to the public. Now the time gap between placing my ad with a magazine and that magazine appearing is at least four to five weeks, during the course of which there can be various changes such as price, availability and time scale.

Communication breakdown is a common source of frustration for all of us. With this in mind, I usually give a company the benefit of the doubt the first time this happens and would probably be prepared to order from them again. Two falls and they're out – permanently. Without attacking or defending any particular company, let's leave it at that – unless any other readers have further points to make.

HEAPS OF PRAISE

In issue 11, Andy Tagger of West Yorkshire claimed that MJC Computer Supplies should win the award of most efficient software supplier of the year. In my opinion, the PD Warehouse would win hands down!

I ordered three PD disks from them by post on a Wednesday and two days later, I received the games. Unfortunately, one of the disks was slightly different from my original order. I rang them on the Friday at 5:00pm and was told that they would send me the correct disk along with a stamped-addressed envelope so I could send back the incorrect disk. To my amazement, the package arrived through my letterbox the following morning, just 12 hours later, all the way from Kent! I sent the disk back along with a letter saying how pleased I was. If that wasn't enough, a few days later I received nine free disks, all with PD programs on it, for my kind letter!

If this firm can be beaten or bettered I shall eat my nine free disks. OK, they slightly botched up the order but with so many orders, everyone does it. I hope you will publish this letter as they thoroughly deserve it.

Please could any reader tell me if there are any games for the ST which are like *Road Rash* and where I could get them from?

Peter Ling, Winsford, Cheshire.

Well, it's nice to hear about good service as we said last time, but it's a sad state of affairs when a company has to send out free software when someone praises them. This should be a matter of course and not a reward situation. Don't take this the wrong way – we don't suggest that you got "something for nothing", merely that it should not be necessary.

On a lighter note, has anyone else got a story of service above and beyond the call of duty? Let us know and we'll compile a list of the best people to deal with.

WRITE IT DOWN!

If you have something to say about the ST world, the magazine or anything else, write it down and send it to us at: Points Of View, Atari ST Review, Europa House, Adlington Park, Macclesfield, SK10 4NP. Don't send us any SAEs as we are unable to enter into personal correspondence. We reserve the right to edit letters for space reasons and all mail received will be considered for publication. Please note that whilst we try to answer every letter, due to the volume received this is not always possible.



Streetfighter II – STE only.


```

*** DISCONNECTED... 13:26
CURRENT CONFIGURATION
Baudrate 9600 baud, Callsign....G4UWZ Name....Tony
Rec buffer is OPEN Size....500 kilobytes (0% used)
Mode AEA Home BBS....G87CRG Mailbox ID....[Bollington, Macclesfield - Amte]
Mail beacon is off,
Auto-forwarding is on, Zap command....L, Zap to disk....on
Zap callsign....G87CRG, 25 scan words on file,
Auto PMS switching after 2 minutes, Database has 1532 entries,
Command character (ASCII)....3, Comms checking....on
0 Program restarts, No errors logged,
Colours are...0=000 1=000 2=000 3=000 Control Byte = 1110001 (113)
MAILBOX....F:\AMTERM_4.34\MAILBOX\ RX DUMP....F:\AMTERM_4.34\RX_DUMP\
YAPP DOWNLOADS..F:\AMTERM_4.34\DOWNLOAD\ YAPP UPLOADS..F:\AMTERM_4.34\UPLOAD\
LOG.....F:\AMTERM_4.34\LOG\ Terminal uptime....0 Days 0 Hours 0 Min,
Node callsign....G4WSD-8, 3RD Party....On, DCD checking....Off,
Automatic zapping is disabled, Forwarding at 52 mins past the hour,
Your hierarchical address is @:G4UWZ.G87CRG.GBR.EU
Press a key
PMS Off Rx Buff Open Con Dir Rx Dump On Printer Off Yapp Up/Down

```

**Amterm
for packet
radio
- is there
anyone
out there?**

Falcon on my desk later this year.

That's about it, really. Keep up the great work. It's so nice to find a magazine that has the serious reviews actually before the games and it shows people that the computer is as serious as the magazine. If that keeps up, people might finally see the Atari series as real computers.
Alex Plooy, New South Wales, Australia

You really can't mention Windows, System 7 and TOS in the same breath. The first two are multi-tasking systems created from the ground up for the PC and Mac environments respectively and are installed onto hard disk. Any minor changes can simply be made via a "tune-up" program on a single floppy. TOS is in ROM; any changes invariably require a new chip set, excluding the rather kludgy Auto folder programs that have been used to various problems especially concerning the ST's serial port.

Your point about a Clipboard is a valid one, and a Clipboard has indeed existed within the ST for many years. But in which format should data be transferred? The proprietary code used by most programmers makes it very difficult to ensure compatibility of data transfer between different programs unless the computer manufacturer insists on a particular format. This is certainly the case on the Mac where the Clipboard can be used to hold data in any format while a program is running but converts it to either text or a PICT (the Mac graphic bit-map format) upon leaving that program.

It all comes down to accurate guidelines. Atari seem to have improved in this area lately - let's hope that we reap the benefits of this in the future.

HAM AND CHIPS!

I would first like to say that I think that your magazine has the right balance between games, serious software and hardware reviews. Keep up the good work. Now for the rest of my letter.

I am starting an Atari Radio User Group for radio amateurs and short wave listeners and would like to know if a similar group exists in the UK already or if anyone is interested in joining one.

I would like the group to help the Atari 8-bit and 16-bit computer owners. If anyone is interested in joining such a group, please send an SAE to me:

**Graham Rayner G7KCT,
38 Brockhurst Road,
Chesham,
Bucks HP5 3JE.**

There have been attempts to start lists on Packet Radio with a view to forming a large worldwide user group, Graham, but this met with little success as people just couldn't be bothered to answer a few questions. It didn't even cost them any money! I hope you have more luck with your group.

BIRTHDAY CELEBRATIONS?

Congratulations on *ST Review's* first birthday and maintaining the quality of the editorials and so on.

I would like to express my concern at the tone of the reply given to Craig Morris of West Yorkshire in issue 12. Quote "We're only sorry that we won't be celebrating any more time with you" unquote.

Given that there has been a takeover at *ST Review*, does that mean that you do not expect to continue much further? I do hope that this is not the case as the *ST* faithful are seriously under-represented already in the journalistic sense and all other aspects.

Also, wouldn't a price drop have been in order for issue 12 as there was only one cover disk?

I do hope you carry on with the magazine for a long time to come.

Robert Drummond, Glasgow, Scotland

As far as we are aware, there are no plans to discontinue the publishing of *ST Review*, Robert, so don't worry. That particular reply was compiled before the deal with Europress was struck and so was accurate at the time of writing.

Issue 12 was the last one published by EMAP, and it is fair to say that the editorial team were unhappy with the cover price, but had no control over the situation. The cover price has now been reduced to £3.50 and cover disk programs are now back to commercial status. We intend to keep it that way.

SUBSCRIPTION PROBLEMS

I am writing to you in the hope that I can subscribe to your magazine. I have tried to call many times, but the number seems to be permanently engaged. I sent my credit card details through in January and I still haven't received a subscription, so I thought I'd write to you instead. I really would like to get your magazine every month as it's the best available, so I have included my card details for you. I missed the first seven issues and I don't want to miss any more.

John Moon, Victoria, Australia.

We're sorry you've had problems, John. We've spoken to our subs department on your behalf and you should now get *ST Review* by airmail every month. Keep spreading the word!

ST DOWN UNDER

I've recently discovered *ST Review*. My first encounter was with issue eight, with an in-depth review of the Falcon, and *Cyber Studio* on the cover disk! I don't want to complete-

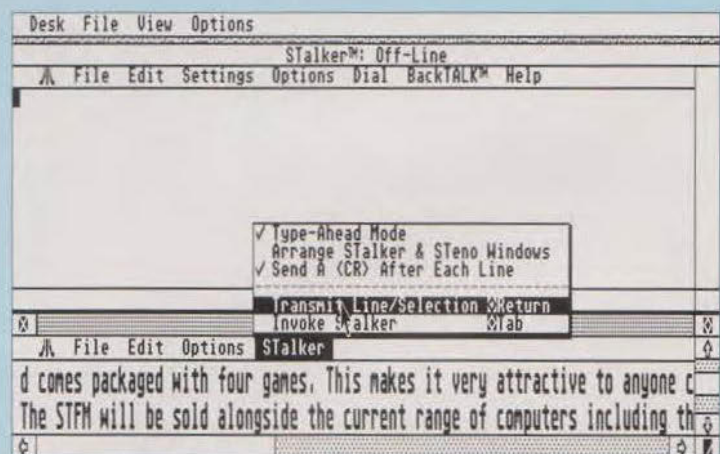
ly rubbish the other magazines, just to let you know that there's one more person switching to *ST Review*.

Now to the point; with the release of the Falcon, it's time Atari sorted out a couple of details. The new hardware is only any good if the software available takes advantage of it. One of my "pet hates" is the way GEM handles text in dialogue boxes. No selecting, cutting and pasting of text is available. Compare that with Windows or System 7 on the Mac, where words can be selected and then deleted inside items such as the file selector.

Which brings me neatly onto my next point. Why is the Falcon file selector so poor? It won't stop me using *UIS III*!

What about colour icons? There must be a way for the Falcon to support these. Also, what about a clipboard? The other systems all allow you to cut items from one program and paste them in to another. I know that an Atari clipboard is available (controlled from the *XControl* panel), but to my knowledge, only two programs, *Stalker 3* and *STeno*, both from Gribnif Software, make use of it. This isn't enough.

Even so, the Falcon is still a scorcher of a machine (actually, the *ST's* pretty terrific, too!) and there's no way I'd ever buy any other computer. I can't wait to have a



Stalker - one of the few programs which use the Atari clipboard



A MAJOR BEEF!

I wonder if many of my fellow readers have reached the same conclusions as I have concerning the idiosyncratic nature of the home computer world and Atari Corporation in particular.

Firstly, let me say how much I appreciated the arrival of *ST Review* into a market increasingly dominated by some strange "yoof" culture where columnists had become convinced that they had to include at least a dozen quotes from Monty Python, Blackadder or Reeves & Mortimer in every article. I'm a great comedy fan and prided myself on recognising even the most obscure quotes, but they didn't contribute to my understanding of the article's subject matter which seemed merely to be padding between one joke and the next. Imagine my relief when *ST Review* appeared – a magazine capable of producing its humour first-hand! With factual accuracy and a mature emotional outlook, here was a magazine which treated its readers as real human beings, not "culture junkies".

When I saw the strange label plastered over the editorial of issue 12, I just had to read the editorial under the label with the help of a torch and... wow! Pretty vitriolic stuff! Understandably, most of your editorial concerned the launch, or rather not, of the Falcon and I found myself agreeing with all the complaints made.

I've been a follower of Atari for more years than I care to remember, from a VCS to the ST via a 600XL. Recently, I had cause to visit my local Atari stockist and was surprised to see an STE-cased Falcon there on display along with a Commodore A1200 and the new Acorn. It will probably come as no surprise to learn that the competition took the lion's share of interest from the punters, probably due to the impressive games they were running. No-one seemed to know about the Falcon and I must stress that the shop staff were not to blame in the slightest for this; it just seemed that there was no interest.

I suppose I should have seen this situation coming, what with Atari releasing TOS version after TOS version for the ST range and changing the layout of the circuit board seemingly at will – how often have you seen the comment "due to the variance in design of the Atari ST, there are a small minority of boards in existence which may require a little soldering". All this chopping and changing has done nothing to further Atari's image and they are now reaping the rewards from their policy of "continually upgrading".

I note with interest Darryl Still's reply to Michael Kirk's letter in *The Blitter End*, (issue 12), particularly his comment on rumours being treated as facts. When the STE was launched, I seem to recall Atari talking of complete compatibility. With the hindsight of this, who can blame us for treating Atari's comments about the Falcon with, shall we say,

mild scepticism? I also see that Mr Still says "Atari has always stated clearly that the Falcon is not a new type of ST, but rather a revolutionary new computer." Really? *New Computer Express* in June 1991 contained an interview with Sam Tramiel, the headline of which, incidentally, read "We will blow the Amiga away!" In the interview, the following exchange takes place:

Sam Tramiel: "We have at least four machines coming out in the ST line and they are just absolutely phenomenal."

Express: "When will we see them?"

ST: "All four will be out in 1992."

Exp: "Will any of them take the place of existing machines?"

ST: "No, they'll be added on."

Exp: "Can we look forward to an even more advanced ST – a sort of STEE specifically for the leisure market?"

ST: "I can't comment on that at all. I can just say that they will be very, very exciting."

Exp: "And they will, of course, run alongside the existing machine?"

ST: "The issue of compatibility for us is, of course, of major, major importance, so we are producing machines that are as consistent as possible in compatibility."

".....always stated clearly... not a new type of ST?": "...as consistent as possible in compatibility?": "added on" to existing machines? Who are we to believe? And what about the comment of not wanting "to build up demand before we can supply?" Why mention this wonder machine at all? Obviously Atari was intending to have the Falcon on the shelves in time to compete with the A1200 but, in true Atari style, something went wrong, so they settled for the next best thing – start a whispering campaign! They hoped that by giving the world glimpses of the new wonder machine, they could persuade people not to rush out recklessly and buy an A1200. Unfortunately instead of going "Wow", the average attitude was more of "Oh, yes, I've heard that one before, haven't I?"

The sad irony of this little saga is that the Falcon really is a wonder machine. It certainly makes the most of existing technology, and the tragedy is that it is in imminent danger of being Atari's first real stillborn child.

All this for the sake of one thing – competition with Commodore. The story's an old one: The XL series verses the C64; the ST verses the A500/600 and now the Falcon against the A1200. I'm not saying that competition is a bad thing, for without it there would be no technological breakthroughs, but I am old enough to own the first issue of *ST/Amiga Format*. Halcyon days – and a happy marriage it was too. There was no bitching or back-biting, no "mine's bigger than yours" school-yard taunts. It didn't last.

The Amiga camp must be laughing themselves sick at the moment as they watch the ever increasing sales figures for the A1200 – and what is Atari's response? "Oh, you must see our new machine, it's brilliant. It'll be out, er, Christmas. Did I say Christmas? Sorry, I meant to say March. Yes, that's it, March, honest. Or April. It will be soon, though, believe me. It's definitely worth waiting for, though and it'll wipe the floor with the A1200. Can you see one in action, did you say? Well, that depends, really. No, wait, where are you going?" Cheers, Atari!

It's all so very sad. I said earlier that I had stuck with Atari since the days of the VCS console, but I am forced to concede that if I were to consider buying a new computer then I'm afraid my past experiences would encourage me to consider

Commodore. Let's just hope that I never have to face that choice.

Paul McCree, Clithroe, Lancashire

Paul, I'm sure you speak for the majority of ST owners; most of us have suffered at the hands of TOS changes and the various quirks of the ST's electronics. I made the comment a year ago that if the Falcon succeeded, it would be in spite of Atari not due to them and I believe that this still holds true. It's probably also true to say that little blame can be apportioned to Atari UK who simply pass on information they receive from the States.

Even with all of the ST's problems, it has been a winner in many areas of the market for one reason only – the support of numerous software companies such as HiSoft, featured in this month's Through The Keyhole. Did such companies wait until the ST had proved itself a success? No, and it's fair to say that many of them are already supporting the Falcon. There is a long list of products either available, due for release in the near future or under development and such support augurs well for the Falcon's future.

Any company at the leading edge of technology is bound to have failures and Atari is no exception. Some products died before release, such as the Stylus graphics tablet and CD-ROM drive, while others have just flopped, the Stacey 'portable' and ST Book to name but two. This is, perhaps, the unacceptable face of technology – there have to be casualties along the way as I'm sure Clive Sinclair would agree.

Sometimes an editor has to voice the deep concerns of the magazine's readership, an attitude I took in writing the editorial for issue 12. Now we have to look forward and ST Review will certainly bring you accurate, in-depth reviews of Falcon software as and when it is available. If there is sufficient demand, such reviews could warrant a separate section in the magazine in a similar manner to games, music and PD.

In the meantime, don't miss our competition next month – someone is definitely going to win a Falcon, a colour monitor, an inkjet printer and lots of software...



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Ladbroke Computing



33 Ormskirk Rd,
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Ladbroke Computing International are one of the longest established home computer dealers in the U.K. We have developed an extensive customer service policy which involves testing of all hardware prior to despatch to ensure that goods arrive in working order, offering free advice and support over the phone and keeping customers informed. Although our prices are not always the cheapest we do endeavour to offer consistently good service and backup.

All prices are correct at copy date 05/05/93 (while stocks last), and are subject to change without prior notice. All prices include VAT but exclude delivery.

How to Pay

You can order by mail Cheques/Postal Orders made payable to Ladbroke Computing. Or give your credit card details over the phone.

Delivery

Postal delivery is available on small items under £40 (Normally £3, phone for details). Add £7 for courier delivery. Next working day delivery on mainland UK subject to stock (£11 for Saturday delivery).

Open Mon-Sat 9.30am to 5.00pm.
Ladbroke Computing Ltd trading as Ladbroke Computing International.

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Printers



Star	
Star LC100 Colour	£165.00
Star LC20	£124.00
Star LC24/100 Mono	£179.00
Starjet SJ48 Bubblejet	£210.00
SJ48 Sheet Feeder	£55.00
SJ48 Ink Cartridge	£19.00

Citizen	
Citizen Swift 240 Colour	£270.00

Hewlett Packard	
HP Deskjet 500	£339.00
HP Deskjet 550 Colour	£580.00

Lasers	
Seikosha OP104	£549.00
● 512K RAM (Exp to 2.5Mb)	
● HP Laserjet IIP emulation	
● 14 resident fonts	
● Centronics/RS232C/RS422	
● 12 months on-site warranty	

Seikosha 512k RAM upgrade	£69.00
Seikosha Toner (2 units)	£19.00
Seikosha Drum Unit	£79.00
Ricoh LP1200	£759.00
Add £3 for Centronics cable and £7 for next working day courier delivery	

DataPulse Plus



Hard Drives

- All Data-Pulse Plus Hard Drives are fully Autoboosting/Autoparking and are formatted, partitioned and tested before despatch, ready to "plug in and go"
- Full metal case measuring 300mm x 285mm x 51mm (wdh), providing good shielding and monitor stand
- Only Highest Quality Quantum or Maxtor mechanisms used
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Data-Pulse + 42Mb	£319.99
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Floptical Drives

- Capable of storing over 20Mb of uncompressed data on a single 3.5" Floptical disk. Can read and write 720K and 1.44Mb 3.5" Floppy disks.
- Average access time 65ms. Data transfer rate of 200K per sec (6 times faster than Floppy disk).
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- Ideal for fast data backup from hard drive. Diamond Back II compatible.

21Mb Floptical Drive	£399.99
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All the Above drives include one 21Mb 3.5" Floptical Disk. Phone for combination HD/Floptical units.

21Mb 3.5" Floptical Disk	£24.99
5 x 21Mb Floptical Disks	£114.95

Aries Upgrades

- Will fit any ST(F)(M) or Mega ST
- Extremely compact in house designed Multi-layer circuit board smaller than a credit card
- Upgradeable in stages from the base 512K to 2Mb then 4Mb
- Solder in design for greater reliability
- Fully tested prior to despatch
- All Aries RAM upgrade boards come packaged in a 10 capacity disk box, complete with full fitting instructions and memory test disk.

512K Board	£39.99
2Mb Board	£79.99
4Mb Board	£129.99
512K SIMM's STE	£9.99
2Mb SIMM's STE	£49.99
4Mb SIMM's	£94.99
2 x SIPP to SIMM adaptors	£3.00

ST/Falcon Networks



Datanet Network Hardware

- Cartridge based high speed network solution
- Compatible with ST (F)(M), Mega ST, STE, Mega STE

PowerNet Network Software

- MultiTasking Network software allows applications to run on the server while drive and printer accesses take place in the background

DataNet with PowerNet	£99.99
LanNet with PowerNet	£89.99
MidiNet with PowerNet	£59.99

Prices quoted are for 1 Node. Each computer attached to a Network requires 1 Node. A LanNet device is required to Utilise the Lan Port on a Mega STE, TT or Falcon.

STE Packs

520 STE	£219.00
1Mb STE	£229.00
2Mb STE	£275.00
4Mb STE	£329.00
1040 STE Curriculum 2	£289.00

Falcon 030

- 16MHz 32 bit 68030 Central Processor, 16MHz Blitter, 32MHz 56001 Digital Signal Processor
- 1.44Mb 3.5" Floppy, up to 14Mb RAM. Displays 65536 colours from 262144 palette at 768 x 480 resolution
- 8 Channel 16 bit, higher than CD quality. Stereo sound sampling

FALCON 4Mb 65Mb HD	£959.00
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Software

Silhouette	£60.00
Scanlite Accessory	£20.00
Diamond Back 2	£29.99
Diamond Edge	£34.99
Image CAT	£24.99
HD Turbokit	£4.99

PC Emulators



- Run PC Software on your ST
 - Full installation instructions
 - XT or AT Emulation
- | | |
|----------------------|---------|
| PC Speed STFM (XT) | £55.00 |
| PC Speed STE (XT) | £55.00 |
| AT Speed STFM (8MHz) | £129.00 |
| AT Speed STE (8MHz) | £139.00 |
| AT Speed C16 STFM | £189.00 |
| AT Speed C16 STE | £199.00 |

Repair Services

Our Service department can repair ST's in minimum time at competitive rates. We can arrange for fully insured, courier pickup and return delivery of your machine to ensure it's safety. We even have a same day service which will ensure your machine is given priority and subject to fault, completed the same day.

We can fit memory upgrades, PC Emulators, Security devices, ROM upgrades, hard drives to Mega STE's etc.

We offer a Quotation service for £15 for which we will examine your machine and report back with an exact price for repair. If you do not wish to go ahead with the repairs then just pay the £15. However if you do go ahead then the charge is included in the minimum charge.

Please note: The minimum charge covers labour, any extra parts are chargeable.



Quotation	£15.00
Minimum repair charge	£35.25
Same day service	£15.00
STFM(E) PSU	£39.99
1Mb internal drive	£44.99
A/B Boot switch	£4.99
TOS 2.06 + Switch STFM	£65.00
TOS 2.06 + Switch STE	£65.00
Courier Pickup	£11.00
Courier Return	£7.00

Phone for price and availability of ST spares

Monitors



Philips 8833 MkII £229.99
Includes 12 Months on-site warranty (Mainland UK) and free Lotus Turbo Challenge II game.
Hi-Res Mono Monitor £139.99
High quality 14" VGA Monitor with ST adaptor (including sound). Fully compatible with all ST Hi-Res Programmes

Atari 1435 Colour Monitor £199.00
14" Atari Colour Monitor including cable
Colour SVGA Monitor £230.00
High quality Colour SVGA Monitor .31 dot pitch. Includes Falcon VGA adaptor.

Falcon VGA Adaptor	£9.99
Falcon ST Monitor Adaptor	£9.99
Philips SCART to ST/STE	£9.99
8833 Mk II to ST/STE	£9.99



When only the Best will do...

Falcons from HiSoft

Yes, we have them - now! In what is an unusual step for us, we have decided to stock both the 1Mb and the 4Mb/65Mb HD versions, the retail prices of which are £599 and £999 inclusive.

We have un-rivalled (in the UK at least) knowledge of the Falcon hardware, its operating system and the tools that will be available for this amazing machine; in addition, we firmly believe in quality of customer service, both before and after a sale. So why not give us a call to discuss the benefits of this superb new computer and how it can best meet your requirements?

Language News

Watch our for new versions of our popular languages; Devpac 3, HiSoft BASIC 2 and Lattice C 5. These latest releases include full Falcon030 support with extra libraries, an improved debugger and a comprehensive handbook that discusses using these products on a Falcon computer.

The new libraries include routines for accessing the video and audio sub-systems, Speedo GDOS, MultiTOS, the DSP processor and other new aspects of the Falcon030. As such they are essential for any programmer with a Falcon computer or for anyone who wants to support this fabulous machine.

These Falcon-enhanced versions will be stickered as such on the outside of the box (an example is shown below) and so will be easily recognisable. Upgrade prices start from £10 for each product - please call for details.

The Falcon030-enhanced sticker that will appear on all our software packages that include special features to take advantage of the Falcon computer.



Speedo GDOS and MultiTOS

At long last, both MultiTOS and Speedo GDOS are available in the UK. MultiTOS is Atari's official pre-emptive, multi-tasking operating system allowing you to schedule a variety of tasks on your computer. Speedo GDOS is the new outline font system based on Bitstream's Speedo font engine.

Both programs are released on 22 May, require upwards of 2Mb of memory and are complete with manuals and free 30-day support from HiSoft.

TruePaint

TruePaint is the first art package to take advantage of the true colour capabilities of the Falcon030 computer ... and it is shipping now. Some of the highlights of the product are:

- Works on all STs and Falcons in all screen resolutions including 768x480 True Colour
- Easy-to-use multi-window environment with menus, toolbox and keyboard shortcuts
- Full range of drawing tools
- A large variety of effects including shear, wrinkle, smooth, rainbow etc.
- Flexible zoom, full screen mode with edit, colour picker, bezier curves ...
- Animation, Font/Speedo GDOS support, wide variety of file formats including IFF, TIFF, GIF, JPEG, Targa, IMG, Neochrome and more
- Extensive and informative 170-page manual



TruePaint was launched at the 7th International Computer Show and has already gained wide acclaim from its users. For more information, please call us and ask for a brochure.

Diamond Edge

From the authors of Diamond Back, the popular hard disk backup program, comes a new package that is essential to any serious user of an Atari 680x0 computer.



Diamond Edge is a complete set of management, optimisation, diagnostic, repair and data recovery tools for use with floppy disks and hard disks. Version 1.04 is now available, this supports the IDE hard disk within the Falcon030 - call for upgrade details.

The current version of Diamond Back, 2.51, has full support for the new 21Mb flopticals - again, contact us for information on upgrading.

DataLite 2

We are pleased to have acquired the exclusive rights to this new program from Germany.

DataLite is a sophisticated 'disk doubler' which, by using a combination of compression & de-compression techniques, can save up to 50% of the space on your hard drive or on your floppy disks. We have thoroughly tested this invaluable program and we have found it to be extremely reliable and easy-to-use.

DataLite compresses all types of data on your disk, not just text files, and thus gives you optimal space saving. DataLite is a logical companion for Diamond Edge and Diamond Back II and we have a special, limited offer for a combined pack of all three utilities (see the box below).

Harlekin 3

The latest upgrade to the immensely popular Harlekin suite of desk accessories is released on 22 May. The package has been much improved and extended including non-modal dialogs, a multi-window editor, full Multi-TOS and Falcon030 support and a new manual. Please call or write for full details and upgrade information.

All HiSoft's products should be available through your local computer dealer. If you have difficulty in obtaining a title you can order directly from HiSoft using your credit or debit card - just call 0525 718181 and ask for mail order sales.

HiSoft
High Quality Software

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Tel: +44 (0) 525 718181
Fax: +44 (0) 525 713716

Special Spring 93 Prices from HiSoft

As a very special mail order promotion, we have reduced the prices of some of our software titles for a limited time to readers of this magazine. The following products will be available, subject to stock, at lower prices for the period 22 May until 31 June 1993. You can only order directly from HiSoft using your credit/debit card or by sending us a cheque/postal order (payable to HiSoft), quoting reference ATS93M1. All prices include VAT and P&P from HiSoft.

Diamond Edge, Diamond Back II, DataLite Package	£99	ProFlight	£14.95
Speedo GDOS and MultiTOS package	£49.95	Lattice C 5 - non Falcon	£99.95
Wordflair 2 inc Speedo GDOS	£59.95	HiSoft BASIC 2 - non Falcon	£54.95
		Devpac 3 - non Falcon	£54.95
		Harlekin 2	£39.95